

Surára
Pakidái

/10 cont. /

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142 is true, the related Surára and Pakidái, as well as the Waiká in the catchment area of the upper Orinoco, embody a type that is strange to us (see Ills. 9-24 /see pp. 270-274/ and ill. in Zerries, 1959), but certainly not one that is repulsive to that extent.

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VI. Technology and Material Culture

1. House Forms

The Surára and Pakidái are familiar with four different house-forms. The simplest and probably the earliest form, which at present, however, is used only as overnight quarters by one family during the expeditions in the virgin forest, is similar to a wind-screen /Windschirm/ (Ill. 4). It is built in the following way: In front, one or two supports, 2-2.50 meters long, are set into the ground at intervals as long as a hammock; about three meters behind these there are two weaker supports, 1-1.50 meters long, at somewhat longer intervals. The upper ends are joined together with poles; cipó-titca (a type of liana) serves as lashing material. The poles are also frequently tied to trees standing a short distance apart, instead of the rear supports. Over this 12 to 15 thinner poles are placed crosswise, and on top of these four to six are placed lengthwise. This results in a more or less steep frame-work which has the shape of a lean-to roof (Ill. 4). Palm leaves are laid on this so that the hut gives secure protection against the rain; even the most severe tropical thunderstorms cannot harm the Indians sleeping under it. The hammocks are fastened in the form of a triangle around the fire burning in the center; in the case of larger families, two hammocks often hang one above the other.

361 /11/ If the entire tribe is on the march, the huts of the individual families are always placed in a circle around the chief's hut standing in the center, after the virgin forest has been hastily cleared to a certain extent beforehand. The space between the huts is five to eight meters.

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343 /11 cont./ Moreover, it should be mentioned that
342 between the chief's house and the windscreen that is 24.80 meters
361 long there stands a four-meter-long, rectangular, open gabled-
hut, the rooster coop (Ill. 7). /12/ /Fig. 1 appears here./

342 /13/ The three windscreens are built as follows: Toward the
interior, posts 3.30-3.60 meters high are set up at irregular inter-
vals. Behind them, at intervals of 2.60 meters, stand smaller
posts which are about 1.20 meters high. The front and rear
posts are joined by strips which are allowed to project about two
meters at the top. Here, too, cipó-titica, a type of liana, serves
for fastening them. Over these strips, at intervals of 50-70 centi-
meters, 31-35 thinner cross-strips are laid, which produces a
windscreen construction. In contrast to the lean-to type of hut
described above, these are genuine, albeit specially large wind-
screens, for they touch the ground on one side. They are about
seven meters deep and the height of the roof is up to six meters.

[824] For roof covering the leaves of the ubim palm (Geonoma sp.) are
[171] used, the "tiles" of the Amazon. The rubber gatherers, the palm-
fiber gatherers, the planters, and woodcutters also use these leaves
as roof and wall covering, the durability of which is four to five
years.

824 The ubim palm, which is very common in the Demini-Aracá
area, reaches a height of only 1.50-2 meters. The leaves are
80 centimeters to one meter long and from 25 to 30 centimeters
[461] wide. The gathering of these is quite strenuous and demands four
to five hours of hard work. They are cut off or broken off and
at first laid on top of one another in piles. When the Indian has
gathered enough leaves, he clears a small rectangular place in
the forest for a distance of about four meters. At this distance
he thrusts three sticks, one meter high, into the ground on either
side directly opposite one another. These are joined together with
lianas. Then piles of eight to ten leaves are placed next to one
another over the three liana strips. When he comes to the end, the
Indian places additional piles of eight to ten leaves in the inter-
spaces, but this time with the stem pointing toward the opposite
side. He repeats this several times until finally all the gathered

[Text Continues on P. 28]

/13 cont./

- 824 leaves are neatly piled up on top of one another. Then he pulls out the three poles on one side and rolls up the leaves, along with the three liana strips on which they are lying, like a carpet. The ends of the lianas are then pulled together securely and one

[482] stuck into the other. A carrying-strap of embira is wrapped around the ball, whereupon the Indian carries the heavy 60-70 kilogram load with his head or chest, in the latter case with the carrying-strap running over the chest and the two upper arms, 30 to 40 minutes or more through the pathless forest to his maloka.

[487] The pace which the Indians strike up in doing this is so swift that I, without a load, always had difficulty following them.

824 Having arrived at the dwelling, on the same day or the fol-
285 lowing day, the leaves are worked up into rectangular mats which are to serve as roof covering, at which the women help. In this technique the efficiency and the inventiveness of the Indian are impressive.

Over a stalk of the paxiŭba palm (Iriartea exorrhiza Mart.) 60-100 ubim leaves are laid next to one another with the under-side on top, and, to be sure, in such a way that only the end of the leaf lies above the paxiŭba stem, while the long stem of the ubim leaf projects beyond it. Each ubim leaf, moreover, consists of three to four V-shaped sides. From the right side there is now begun the fitting of the leaves together into a firm structure. The lower part of the right V-shaped side is now folded under. Then the long ubim stem is bent, wrapped around the paxiŭba stem, led upward to the right of the leaf, and then laid over the leaf toward the left. The same procedure is followed with the adjacent leaves. The stem end of the last leaf on the left is fastened with a piece of liana wound around the paxiŭba stem, or simply by bending this stem to the right, by way of exception, and shoving it under the other leaves. With this a pano (rectangular mat) is completed, generally with a length of five to eight
342 meters and a width of half a meter. Depending on the length
824 of the windscreen, 80-100 or more of these panos /14/ are now laid on the roof framework over one another tile-fashion at intervals of 30-50 centimeters and fastened with lianas.

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/15 cont./

342 large posts. On each of the two narrow sides of the three tall middle posts, 11 thin sticks are attached, organ-fashion, between the supported horizontal poles and form the two gable faces.

[827] Here, too, cipó-titica is used exclusively as the lashing material. To the right on the front broad-side and to the left on the rear one there is a small entrance only one meter high and one meter wide. After the framework is completed (Ill. 8), the panos (rectangular mats made out of the leaves of the ubim palm) are again laid over one another on the roof, like shingles, and fastened to the rafters. It is the same technique as has already been described in the construction of the large, open maloka. The upper part of the two gable sides is left open so that light may penetrate into the interior of the house and the smoke be carried off. The walls, too, are completely covered with panos, and in front of the entrances palm-leaf mats that can be drawn back are hung by means of lianas. Inside the house, the center part is left free for holding festivals and dances, while the families, in the same way as in the open maloka, live comparatively close to the wall, one family beside the other. For the chief and his family a particularly large space is reserved on the side toward the river.

342 The astonishing fact in this form of house is that the ground
171 plan is circular whereas the roof is gable-shaped. Ordinarily for
114 houses with a circular ground-plan, the conical roof is characteristic, as Olga Coudreau (54) and Koch-Grünberg (55) have shown

54. Olga Coudreau, 1903, p. 121.

55. Koch-Grünberg, 1923a, p. 18 and Pl. 2 (1a, 1b, 2a, 2b).

for Karaiben /Carib/ tribes. In this case, one or at most two center posts are used. Koch-Grünberg also mentions, to be sure, a construction with three and writes: "If the two center posts are set farther apart or if, instead of two center posts, three or more are used, /16/ the ridge is lengthened and the circular ground-plan gradually becomes an elliptical one" (56).

56. Koch-Grünberg, 1923a, p. 22 and Pl. 2 (4).

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/17 cont./

and by Zerries for the Waiká (63).

63. Zerries, 1954b, p. 73.

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3. War and Hunting Weapons and Accessories

For war and hunting expeditions the Surára and Pakidái, exactly like most of the other forest nomads of South America, use very large bows -- hâtonahî -- and arrows -- xeréka (Ill. 12).

• [824] The bows, so-called simple bows because they consist of only one piece, are made out of the heavy black wood of the pupunha or chonta palm (Guilielma speciosa Mart.) and are between 2.03-2.12 meters long. Their tension-strength weight is 32 kilograms and the length of stretch 71 centimeters (64). As

64. Pertinent comparisons with bows of other South American tribes may be found in Ranke's chart (Ranke, 1903, p. 347).

the result of a not too marked, but uniform curvature, they have a symmetrical appearance. While the outer side is flat, the inner side is rounded, so that the cross-section, which in the center amounts to 2-2 1/2 centimeters, appears semicircular. The two ends come to a point (Fig. 2 i).

411 With regard to their construction it may be said that now-
412 adays the bow-staff is first roughly shaped with ax and tercado
322 (large bush-knife (65). (I did not find any stone axes, which

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65. They obtain these objects by barter with piacabeiros (palm-fiber gatherers) and as gifts from the personnel of the Indian protection post Ajuricaba on the middle Demini.

[439] were perhaps once used in former times.) Subsequently the men shape them with a small knife, which they likewise obtain by barter.

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/17 cont. /

411 barrier. For smoothing, they use the inner edge of the eye-tooth
412 from the lower jaw of a wild pig and the rough leaves of the
322 curatella (*Cecropia peltata*), which gives the bow a beautiful,
237 shiny appearance.

● 234 The bowstring -- *penahitabe* --, which consists of three
411 strands of *curaua* (*Bromeliaceae*) fiber strings twisted to the right,
233 is fastened to the bow ends with a simple knot. If one wants to
tighten up the bow, the string must be twisted more, which makes
it shorter.

411 The bow described may be immediately classified as one of
191 the typical bow-forms of Guiana, which Métraux characterizes as
114 follows: "Guiana bows were generally convex on the belly while
the back or outer surface was concave or flat" /cited in English/ (66).

66. Métraux, 1949, p. 232.

According to Meyer's classification, on account of its semi-circular cross-section, it would /18/ belong to the North Brazilian bow-type; on the basis of the material, however, to the Peru group, because it is not the reddish-brown, smooth leguminous wood, but that of the pupunha palm (67). P. Schmidt also

67. Meyer, no date, p. 31.

devotes a rather long section to this "reverse form of the flat bow" and already lists the following tribes north of the Amazonas where it occurs: "Kanamare on the Rio Jurua, Trio, Ojana, Makusi, Wapishana, Uaupe, Porokoto, Passe (child's bow), Siriana on the Rio /Fig. 2 appears here. / /19/ Uraricapara, Motomoto" (68). On the basis of the descriptions and illustra-

68. P. Schmidt, 1913, p. 1030.

tions of the Xiriana bow which Koch-Grünberg gives (69), it is

69. Koch-Grünberg, 1923a, p. 311 and
PL. 47 (1 and 2a, b, c, d).

[TEXT CONTINUES ON P. 39]

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/19 cont./

411 almost identical with that of the Surára and Pakidái, except for
184 the fact that the former is set off at the ends. This confirms the
114 statements made by the Indians investigated by me who said that
[173] they obtained bows of this kind and the knowledge of how to make
them themselves from the Xiríana. In reply to my question as to
why their bows were not set off at the end, I was told that the
Xiríana demand this deviation. In the Hamburg Museum für
Völkerkunde und Vorgeschichte /Museum for Ethnology and
Prehistory/, there are two Xiríana bows which were collected
by Koch-Grünberg (12. 25:29, 12. 25:31). They are relatively
small specimens, however, for they are only 1.92 and 1.82
meters high, respectively. A bow which came from the
Xamatári of the Rio Maíá, a left tributary of the Rio Cauaboris,
and which is also in the Hamburg Museum für Völkerkunde und
Vorgeschichte (Boeldecke Collection, 56. 15:4) and is two meters
high, has exactly the same shape as the Surára and Pakidái one,
that is, without the offset ends. This is not surprising, for,
according to the statement of the Surára chief Hewemáo, the
Xamatári are likewise satellites of the Xiríana (see p. 12).
Finally, it should be mentioned that the same bow-form has
also been documented for the Waikí in Venezuela (70).

70. Schuster, 1958b, p. 17.

411 The arrows -- xeréka --, whose total length comes to be-
249 tween 2-2.12 meters (shaft length 1.89-1.94 meters; weight,
824 60-90 grams) (71) (72), are made out of arrow cane -- xerekaíbe --

[114] 71. These measurements confirm Weule's state-
ment when he says that the arrow must corre-
spond in length, shape, and weight to the bow,
in order to guarantee a certain accuracy of
aim (Weule, 1899, p. 6).

72. Pertinent comparisons with other South
American tribes are to be found in the
chart by Ranke (Ranke, 1903, p. 347).

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/19 cont./

411 which the Surfara and Pakidfi plant in the vicinity of their malokas
 249 on the upper Aracá and the middle Demini, respectively. All five
 824 of the arrow types used by them have the same feathering --
 237 jaromahik --, which consists of two halves of the black wing feathers
 of the mutum (Crax sp.) -- paruf. They are placed against the
 cane in such a way that they alternately show the upper and the
 283 lower side of the feather. At several places on the hand end they
 are held by two threads of the tight winding of Bromelia fibers --
permakatiurakama. Inside this winding, which is supposed to
 strengthen the weak cane against the pressure of the bowstring, there
 is stuck on the end of the cane in addition a small wooden peg
 fastened with resin, which has a notch in its thickened outer part,
 which is set on the bowstring. This is supposed to prevent the
 cane from splitting when the arrow flies off. The upper end of the
 feather shaft is wound with a second, narrower winding, in which,
 between the two halves of the arrow feathers, two additional
 small black mutum feathers are frequently stuck as ornaments
 (Fig. 2f).

411 The feathering described belongs to the Guiana type of
 184 feathering, according to the classification by Meyer (73). Koch-
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73. Meyer, no date, p. 9.

Grünberg (74) confirms it for the Xiriána, and it can also be recog-

74. Koch-Grünberg, 1923a, p. 312 and
 Pl. 47 (4, 7, 8).

nized on the arrows which that investigator brought back for the
 Hamburg Museum für Völkerkunde und Vorgeschichte (Koch-
 Grünberg Collection, 12.25:33-42). The arrows in the Alfred
 Boeldecke Collection (56.15:5-7) in the same museum and the
 drawings by Vinci (75) show that the Xamatari likewise use this

75. Vinci, 1956, p. 146, Fig. 2.

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/20 cont./

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[171] Métraux (83).

83. Métraux, 1949, pp. 236/37 and Fig. 64.

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[824] 2. Rahaká -- This is a narrower lancet-shaped bamboo point which is inserted in the arrow cane wound with *Bromelia* fibers in the same way as the kantaná (Fig. 2b). The individual points are 20-22 centimeters long and 1.5 - 2 centimeters wide in the middle. Wild pigs, water hogs (capybara), deer, pacas, and cutias (see p. 4) are killed with them. It is noteworthy that such narrow bamboo points have hitherto not been mentioned in the literature.

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[314] 3. Kantarím -- Point with barb, made from a twin-pointed piece of bone from the cuatá (*Ateles paniscus* L.). This is lashed, by means of a winding of *Bromelia* fibers additionally coated with pitch, parallel to the upper end of a wooden shaft inserted in the arrow cane (Fig. 2c). With this arrow tip, which is very widespread in South America, the Surára and Pakidái shoot birds and fish.

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[171] According to the classification by Métraux, it belongs to the second principal type of arrow points occurring in the tropical forest region of South America (84). Meyer mentions that it is

84. Métraux, 1949, p. 237.

184 used in Guiana, but also in western Brazil and among the Karajá /Caraja/ (85). Within the Yanoámi group, they have furthermore

85. Meyer, no date, p. 18.

been documented for the Xiriána (86), Karimé (87), Xamatári (88),

86. Koch-Grünberg, 1923a, p. 312
and Pl. 47 (7).

87. Salathé, 1931/32, p. 300 and Fig. 3c.

88. Vinci, 1956, pp. 144 and 146, Fig. c.

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/20 cont./

and Waiká (89) (90). In the Hamburg Museum für Völkerkunde

89. Zerries, 1956b, p. 151.

90. Schuster, 1958b, p. 17.

und Vorgeschichte, there are, /21/ moreover, three Xiriána arrows with this point (Koch-Grünberg Collection, 12.25:39-41) and an arrow from the Xamatári (Boeldecke Collection, 56.15:6).

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[824] 4. Ranaká -- Forked wooden point of a bird arrow; length, 12-15 centimeters. The material is furnished by a tree -- paloórimá -- which shows countless such forkings. The lower part of the stem is pointed and is set in the arrow cane wound with Bromelia fibers (Fig. 2e). Thus far there is a parallel for this arrow point only among the Waiká (91a).

91a. Barker, 1953, p. 464.

5. Unamú -- Wooden arrow-point with a coating of poison. A thin, pointed rod of the hard wood of the pupunha palm, 22-24 centimeters long, is coated with arrow poison, giving it a black appearance. The rear end is inserted in the arrow cane wound with Bromelia fibers (Fig. 2d). Such poisoned arrows are used exclusively for hunting monkeys, since these animals living in the tall trees are otherwise difficult to kill. According to the statements of Surárá and Pakidáí informants, they never shoot poisoned arrows at human beings.

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184 Other Yanonámi tribes who likewise use poisoned arrows are the Xiriána (91b), Karimé (92), and Waiká (93) (94). Moreover,

91b. Koch-Grünberg, 1923, p. 312.

92. Salathé, 1931/32, p. 301 and Fig. 5a.

93. Zerries, 1956b, p. 151.

94. Schuster, 1958b, p. 17.

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/21 cont. /

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The strongest poison is said to be obtained from the milk of a tree which, in the language of the Surára, is called -- patemá.

• [824]

This tree was not pointed out to me; I was told that it only grows in a very distant region. To prepare an allegedly weaker poison the milk of the -- tototó -- (Strychnos toxifera) is used.

[415]

As soon as it is obtained, the particular type of milk is boiled in a clay vessel. This makes it turn black, and subsequently

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it is painted on the arrow points by means of a wooden stick which is wrapped with cotton. Special bags -- kanabó --, which are made

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out of the leaves of the acaf palm (Euterpe oleracea Mart.) and

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sewed with lianas, are used for storing them. There is never anything left of the poison itself.

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I was also told that of the tribes allied with the Xiriána only

the Surára were entrusted with the preparation of these two types

of poison. All the Indians who were friendly with them, even the

Xiriána, thus obtained their poisoned arrows from them by barter.

The Surára chief Hewemão, however, emphasized that the detested

Waiká also knew how to prepare arrow poisons, which they used

[114]

above all to shoot at human beings. The latter statement is confirmed by Zerries (99).

99. Zerries, 1956b, p. 151.

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/22/ The third type of arrow poison is the weakest. It is

made out of snuff powder -- epená -- (see pp.190/193, which is

mixed with water and boiled. This method is also supposed to be

familiar to the Pakidái and Xiriána.

Unfortunately, I could not take part in the preparation of

the poisons, for, with the exception of the chief /Fig. 3 appears

here/ and his brother, only a few older men are familiar with

them and they are kept strictly secret even from all the other

members of the tribe. The meager information about them is

limited to oral statements.

/22 cont./

Boys' bow:

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● [824] The boys' bow -- hauoá -- is 80-90 centimeters long and consists of a curved branch of the paioórimá tree, which also furnishes the material for the bird arrow-points. As in the case of all branch-bows, the arms are of different lengths, so that an unsymmetrical shape is produced, which affects the accuracy of the



Fig. 3. Position for shooting with the bow.

shot. This is of no consequence, however, since these are merely
[283] toy bows for small boys. On both ends the bow staff is tapered and
[824] set off to receive the bowstring -- pebatábe -- which is made out of a liana (cipó-titica) (Fig. 2g).

Boys' arrows:

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[824]

[237]

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[192]

Ruhumaçik is the name of the thin arrow, 80-90 centimeters long, for boys, which the fathers make out of the wood of the inaja palm Maximiliana regia Mart.) -- kareximaci. The feathering -- jaronahik -- consists of two small halves of mutum feathers, which are lashed to the shaft with a thread of cotton. Instead of an arrow point mounted separately, the arrow here is only slightly pointed (Fig. 2h); the designation for it is -- peimaçikenâme.

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/24 cont./

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824 Among the Indians investigated by me, I observed neither poles nor clubs (112), but I did see an intermediate form, namely, sticks

112. Among the Xiriána, too, Koch-Grünberg did not discover any native clubs (Koch-Grünberg, 1923a, p. 313).

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171 made of pupunha wood 1.30-1.40 meters long, which are somewhat thicker at one end and the name of which is likewise -- hímo. With these the men, for certain reasons, engage in stick-duels (113) which resemble those of the Guayakí (114):

113. Becher, 1959, pp. 162 ff.

114. Baldus, 1939, p. 113.

411
184 they differ greatly, however, from the stick combats of the Botokuden (115). Nevertheless, there are distinct parallels be-

115. Prince zu Wied-Neuwied, 1820, pp. 368-370.

[174] tween the poles or clubs of the Waiká and the sticks of the Surára and Pakidái, first of all, on account of the similar use to which they are put and, secondly, because of the similar name. It is therefore to be assumed that pole and stick represent very primitive weapons, from which, presumably as a result of external influences, the club was developed.

411 Quivers:

[531] The bamboo quivers -- rôra -- 32 to 40 centimeters long, with a diameter of four to five centimeters, are an important accessory for the hunting and war weapons. They are for the most part decorated with incised serpentine lines and zigzag designs (Figs. 4a, 4b).

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482 The quiver, in which there are always a few poisoned arrow-points wrapped in palm leaves and several large, as well as small,

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411 /24 cont. /

411 182 lance-shaped bamboo points, is worn on a neck cord by every hunter and warrior, who has it hang down on his back so that it does not interfere with the stretching of the bow.

411 /25/ Quivers of the same form and carried in the same way
184 are also found among the Waiká, as may be seen from a photograph by Zerries (116). Moreover, the Hamburg Museum für Völkerkunde und Vorgeschichte owns such a quiver, though without decoration, from the Xamatári (Boeldecke Collection, 56.15:3a).

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4. Fire-making Apparatus

Tied by means of a string of cotton or curaná (Bromelia fiber) to every Surára and Pakidai quiver at the top and bottom is the fire-drilling apparatus -- boctrohfk -- which consists of a lance-shaped hearth -- panáibequehfk -- and two drilling sticks -- ihirupehfk (Fig. 5). Both parts are made from the soft wood of the wild cacao tree -- porôroá -- exactly as among the Waiká (117).

117. Schuster, 1958b, p. 17.

372 Koch-Grünberg documents such a fire-drilling apparatus for the
114 Xirianá (118), but without mentioning the material. On the basis

118. Koch-Grünberg, 1923a, p. 311.

of a specimen which he brought back for the Hamburg Museum für Völkerkunde und Vorgeschichte (Koch-Grünberg Collection, 12.25:124), however, one may state that it is likewise made of the wood of the wild cacao tree. He says nothing at all about

(411) quivers and thus does not seem to have found any. Nor did I find elsewhere in the literature any parallels for the very practical combination of quiver and fire-making apparatus (119). Nevertheless,

119. That it is well-known among the Xamatári, however, is proved by two objects from that tribe in the Hamburg Museum

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372 /25 cont. /

(see p.116) and are /26/ connected with a small groove at the side. The hole is enlarged by the drilling. There is loosened a fine dust which slowly starts to smoke and glow and, by way of the groove, falls on tinder previously placed next to it (dry grass, leaves, or dry splinters of bamboo), which quickly catches fire. Cautiously the man blows upon it, and a short time later a flame leaps up. This requires a great deal of practice and skill, however; often he (171) has blisters on his hands after drilling. This is the most widely distributed method of producing fire in South America (120). In their malokas

120. Nordenskiöld, 1924, pp. 118-125
and Map 13.

the Surára and Pakidáí preserve the fire.

283

5. Twining and Spinning

- [824] For making thread and cord the leaf fibers of a Bromeliaceae, curauá (121), and cotton are used, the latter, however, only in more recent times.

[114]
[171] 121. Koch-Grünberg also verifies the use of this material for the northwestern Brazilian tribes (Koch-Grünberg, 1910, p. 210).

[462] While to this day the curauá fibers are worked, mostly by men and only occasionally by women, with the right hand against the right thigh in the direction of the knee, to produce thread twisted to the right (122), a spindle is used to make cotton thread,

[171] 122. Threads which are not spun with the spindle are twisted to the right among most of the South American tribes. There are exceptions, however, for among a few nations of northwestern South America threads twisted to the left are more prevalent, and

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/27 cont./

6. Dress and Ornament

291

a) Hip cords and belts

From the age of four on both sexes constantly wear a hip cord -- nhamaaxf -- which is made by the women, but occasionally also by men, out of curauá fibers, the original material (see p. 55), or out of cotton. For the former, two strands are twisted to the right, and for the latter, to the left. The old technique of the right twist in the working of curauá fibers was thus retained, in spite of the adoption of cotton. There is, however, a further important difference. Whereas the hip cord of cotton represents the everyday dress, so to speak, /28/ the one made out of curauá fibers is at present used almost solely for ceremonial purposes.

All male Surára and Pakidái tie the penis up by means of the hip cord, which is done before donning it by tying a knot and drawing the foreskin through it.

With the hip cord these Indians feel clothed, and they therefore never take it off, not even for sleeping or bathing. Once when I was out hunting with the war chief of the Pakidái, Poréhiwō, he happened to tear his hip cord. He modestly stepped behind the nearest tree immediately and tied it together again. Later he told me that it would be the most flagrant offense against good form to walk about without the hip cord. The women would then cover their faces and scream loudly.

Hence a man may never appear with his penis hanging down, and it would be a positively execrable crime, which is punished by blows, if he exposed his glans to the eyes of women and girls.

This shows that among the Surára and Pakidái the hip cord in general, for women and girls also use it without covering anything with it, and the tying up of the penis in particular are associated with feelings of propriety (137). I am herewith able to

137. The hip cord is never used as a device for carrying utilitarian articles, as Baldus noted, for example, among the Tapirapé

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291 /36 cont. /

171 been documented for the men of the Makuxf (193) and Waiwai (194).

193. Farabee, 1924, p. 61.

194. Farabee, 1924, Pl. XXX.

b) Chest cords

301 The simple cord slung crosswise over chest and back --
[192] xinarfke -- and the similarly used string-bundle -- xinarf -- (195)

195. This name is identical with the word
for cotton.

represent among the Surára and Pakidai characteristic articles of clothing for the girls and women. Among the latter, the cord or string-bundle runs directly below the breasts and crosses over the chest cavity, so that, at first glance, it looks like a bust support; but no lifting of the breast is connected with it, for it is quite loose (Ill. 10).

• [283] Whereas the women's cord, 1.50-1.60 meters long, twisted
[824] out of two threads, and knotted at the ends, is made of curauá fibers or cotton (the length of the corresponding girls' cord is 1.20-1.40 meters), in the case of the string bundles there are layers of cotton 56-90 centimeters long, which consist of 60-80 strings and are tied together at one point. The thinner specimens are used by young women and the thicker ones by older women.

386 Both the string bundles and the cord are either dyed red all over
301 or, as in the case of the former, for example, are provided with
[53] red rings, one centimeter wide, at intervals of 6-7 centimeters
[302] (Fig. 13a and b), for which urucú dye is used. Undyed objects in time take on a dirty brown appearance, like the hammocks, for the red body-painting adheres to the cotton.

301 The chest cord, which is now and then tied around little girls
856 from four years old on, is supposed to help give them beautifully shaped breasts later on. Even the younger women, however, have

Surára
Pakidái

301 /36 cont. / Even the younger women, however, have
152 the idea that by occasionally wearing it they can preserve their
busts, especially if the cord was made of the original material,
• (824) curauá fibers. On the other hand, the chest cord and the string
292 bundle, which is worn only during festivals and on the occasion
of ceremonial acts, are regarded as ornamental objects and
insignia of two age classes.

301 The women of the Xiriána, Puseheweterí, Aramamesterí,
184 and Karauaterí whom I met in the malokas of the Surára and
Pakidái also wore such cords and string bundles, to be sure, but
[114] said that they were not used in their tribes. This also explains
why Koch-Grünberg did not mention such articles when he
301 described the dress of the Xiriána (Schirianá). Among the Arekuná-
171 Taulipang, on the other hand, he saw as festival ornaments for
women and men long chains /37/ /Fig. 13 appears here/ of
white beads and brown seeds, which they had slung crosswise in
many windings over the chest and back (196) (197). Aside from

196. Koch-Grünberg, 1923a, p. 37.

197. Koch-Grünberg, 1923b, Plates 15,
45, 62, 91, 92, 93, 98, 99, 100, 102,
and 107.

the additional ornamental material used, these chains differ
from the cords and string bundles described above in the way they
are worn, for they reach much farther down.

301 One thus gains the impression that in the case of the chest
174 cord of curauá fibers used by the Surára and Pakidái women it is
a very primitive object from which the string bundle was developed
after the introduction of cotton. This, in turn, could have been
borrowed by Karaiben tribes, perhaps during war contacts, and
[171] transformed by them into a long ornamental chain. The former
is, to be sure, also slung crosswise, but the original meaning, the
enhancement of the breast form, was lost, which may also be
deduced from the fact that among the Arekuná-Taulipang even
men tie such an ornamental chain around themselves.

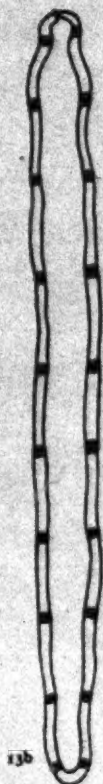
/37 cont. /

301
531



13a

Fig. 13a-b. Chest string-bundle of the women (detail and diagram of the painting).



13b

301 c) Cords for arms, wrists, and legs

From the age of four on both sexes at times wear upper-arm cords, and women and girls in addition wrist- and leg-

[283] cords, which are made of curauá fibers or cotton. It was also definitely established that the two-strand curauá-fiber cords twisted to the right are the original objects, whereas the two-strand cotton cords twisted to the left are of more recent

• [824] date. Moreover, here, too, it was observed that a strengthening effect is attributed to the plant fiber.

[856]

SURAY
PAKIDAI

/39 cont. /

301 171 This ancient Karaiben /Carib/ custom, which already caught the eye of the early discoverers as something unusual, is also familiar to the Suráa and Pakidái, but is regarded by them as very ugly and thus not copied; for the women and girls among these Indians the leg cords are always loose.

301 d) Neck cords and chains of primitive material

789 832 It is not ornamentation, but magic that is connected with the neck cords and chains of primitive material.

• [24] Thus, young men sometimes wear around their necks an urucú-colored, two-strand curauá-fiber cord twisted to the right, to which is fastened a small piece of the root of the tajá (Colocasia antiquorum and Xanthosoma violaceum Schott) -- hanrë. Love magic is involved here (see p. 242). In order to ward it off, married female members of the tribe use two kinds of neck chains. On their urucú-colored cord of curauá fibers, young women tie numerous small pieces of the root of the tajá -- hanrë -- and older ones small bits of the camarau (Cipó sp.) -- hif -- (see p. 243).

302 e) Hair style

[462] Men, women, and children, after the third year of life, have the same hair style -- mabéu -- cut evenly all around the head, including the tonsure -- hemôno. Shaving the latter, but also cutting the hair are duties of the women, for which they use a piece of reed split and sharpened on one side (taquara -- Guadua sp. --) (see p. 119). At festivals, on the occasion of magical acts, and during war expeditions the tonsure is painted with urucú.

[578] According to statements by my informants, it primarily represents a marking which, for the stick duels that the men occasionally carry out, distinguishes the safest and most resistant part of the head (205). This also explains the scars which one

205. Becher, 1959, p. 165.

302 593 sees on the tonsures of almost all the men. They are also present, however, in the case of female members of the tribe, for if a

Surárá
Pakidáí

/41 cont. /

301 as far as Guiana; the Tapuya on the eastern horn of South
171 America remain isolated. The pattern of distribution coincides
301 in essential features with the multiple perforations of the upper
304 lip (these parts also merge into each other very much anatomi-
171 cally) and clearly rests on Andean prototypes" (222). The

222. Menzel, 1957, p. 33.

characteristic mouth-corner rods of the Yanonámi women may well fit into this area of distribution, but not in connection with perforations of the upper /42/ lip, for here instead of the latter, the lower lip is pierced.

304 g) Tattooing

[881] All women and girls have pin-point tattooing over the upper lip, which extends downward on either side of the mouth (ills. 19 and 24) and is punctured on the girls during the first menstruation (see p. 66) (223). The designation for this among the Surára

[184] 223. This tattooing is also found among the female Xiriána, Puseheweterf, and Aramamesterf who are married to Surára and Pakidáí men. The little captive of the Surára, Nikeromá, from the hostile tribe of the Karauaterf is an exception. She assured me, however, that in her maloka the girls are also tattooed. But she had fallen into the hands of the Surára before her first menstruation, and the tattooing was not put on her here. If later, however, she is married by a Surára man, the pin-point design must subsequently be punctured on her.

is -- uarabakoxfk -- and among the Pakidáí -- uarabakoxfke.

These words are derived from the name for the genipap fruit -- uarabá --, the juice of which is used for puncturing the dots.

824
386

Surara
Pakidai

/42 cont. /

304 The former use the juice of the genipap fruit as coloring
824 matter, the latter the ashes of burned honey bees (229) /see
386 footnote p. 90/. The original instrument everywhere for the
412 puncturing of the dots was a palm thorn. Koch-Grünberg, how-
777 ever, also saw the use of pointed fragments of glass among the
above-mentioned Karaiben (230).

230. Koch-Grünberg, 1923a, p. 45.

304 A decision about whether the tattooings in the mouth region
174 developed independently among the aforementioned Yanonámi,
171 Karaiben, and Aruak tribes or whether they were brought about
114 by reciprocal or outside influences cannot be reached as yet,
although Koch-Grünberg saw a young Xiriána woman who had
the fishhook and dot tattooing of the Arekuna-Taulipang painted
on her face (231). This may have been an exception, however,

231. Koch-Grünberg, 1923a, p. 305.

for, strangely enough, he did not find any further tattooing among
the Xiriána.

[177] The designs of the Surara and Pakidai also seem to be more
primitive than the basic motifs of the Karaiben and Aruaken in
the form of fishhooks, which clearly point to borrowings from
civilization. Moreover, the fact that among the Karaiben
tribes of Guiana individual men and boys are tattooed in the
region of the mouth leads one to conclude that there has been a
leveling of this custom. For probably there, too, it was formerly
reserved for only the women, just as it is today among the Surara
and Pakidai.

In conclusion, reference is to be made to P. Schmidt and
Nordenskiöld, from whom there are already available brief,
summary studies about puncture-tattooing in South America.
The first-named author differentiates two groups, which are
reserved for men and women or only for women, respectively,
and regards a western origin as probable (232). /43/ On the other

/43 cont. /

232. P. Schmidt, 1913, pp. 1083/84.

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114 hand, Nordenskiöld represents the view that puncture-tattooing
"could rather easily have been discovered in various places."

His map of distribution shows a concentration of this custom in the northern and central parts of South America (233). A com-

233. Nordenskiöld, 1918, pp. 128-130
and Map 19.

prehensive study on the tattooing of South American Indians
would definitely produce worthwhile and informative results.

301 h) Painting

The body painting which is applied on ceremonial occasions,
war expeditions, and occasionally also hunting expeditions is

(531) very simple and artless. Either it consists of constantly recurring
motifs, such as serpentine lines, circles and dots (234), which

234. The implements are also painted with
these motifs.

are applied sometimes singly, sometimes mixed, or the entire
body is rubbed with red or black coloring matter.

• [824] For the red coloring matter, there is urucú -- nará --, a
[386] paste which is prepared from the red berries of Bixa orellana.

Blue color is furnished by the seeds of the genipap fruit (Genipa
brasiliensis) -- narabá --, whereas for black coloring matter the
soot scraped off cooking pots is used, usually mixed with a little
genipap.

[413] The serpentine lines, circles, and dots are applied with the
fingers or a wooden stick, and for diffused coloring a little ball
of cotton is used.

Surára
Pakidái

/45 cont. /

301 in most cases, a silver triangle, a large glass bead, or a fruit pit is fastened at the bottom.

301
439 When I came to the Surára and Pakidái, a few bead chains were already in use. According to their statements, they had obtained the glass beads from the Indian protection post Ajuricaba on the Rio Demini, from rubber and palm-fiber gatherers, and from the Xiriána. The latter had presumably acquired this foreign commodity from Karaiben tribes who, for their part, had received it from the whites. This shows that the barter of glass beads is still carried on vigorously among the Indians themselves (245).

[114]

245. It was already observed by v. Martius that glass beads were traded over wide areas (von Martius, 1867, I, pp. 702 ff.), and Krause also points out that they are greatly prized as trade items (Krause, 1911, p. 279).

7. Hammocks

352
• [824]

The Surára and Pakidái have three different kinds of hammocks. The hammock of embira (tree bast, Malvaceae sp.) -- yáritanaçfk -- whose length is between 1.80-1.90 meters, may probably be regarded as the oldest and most primitive form (Ill. 26). It has no web and consists only of ten to 14 embira strips 1-2 centimeters wide. These are bent over at the ends and tied together by means of two ropes 1.30-1.40 meters long, which at the same time serve for suspension (Fig. 18a and b). Both ropes are very strong and durable, for they have been plaited in the form of a braid out of three one-centimeter-wide /46/ /Fig. 18 appears here/ strands of embira. The manufacture of this hammock is extraordinarily simple and is done only by men. From the embira tree they remove 10-15 bast strips two meters long and 1-2 centimeters wide, which they tie together in the manner described above, after they have first plaited two ropes. To cut the tree bast they use the little cutia-tooth knife (see p. 113). Since the yáritanaçfk is extraordinarily light, the men like to use it on their

[284]

[462]
[824]
[284]

[412]

Surara
pakidai

/47 cont. /

352

Finally, as the third and most important form, which is used constantly by men, women, and children, both in the maloka as well as during migrations of the tribe, the plaited hammock of cotton -- nyō (258) -- is to be mentioned (Ills. 28 and 29). Aside

258. The cotton belts are also designated with the same word.

from the material, it differs from the two earlier types above all because of the weft. The lengths run between 1.60-2.20 meters, depending on whether they are meant for children or adults.

[462]

Making them is again the duty of the men, though the women occasionally help a little.

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Before they are made, two posts are rammed into the ground and connected at top and bottom by cross-poles with lianas. The length of the hammock depends on the distance of the latter, for around these cross poles is /Figs. 19 and 20 appear here/ wound the continuous warp thread, the two ends of which are knotted with the warp at the start and finish. This produces front and rear layers of thread, which are united into a single layer by slipping the rear warp threads between the /48/ front ones. After that the plaiting of the double thread is begun, which is done without implements, only with the fingers, from right to left; it should also be mentioned that it is started at the top. All hammocks are plaited with very wide meshes, for the intervals between the individual cross-bindings, which are knotted at the beginning and end, are 8-12 centimeters. To fasten the hammocks ropes of Bromelia fibers (curauá) are used, which, made of four strands, braidlike, are twisted to the right.

• [824]

352

[302]

When a hammock has been used for some time, it gradually takes on a dirty-brown appearance. This comes about because the urucú color with which the Indians frequently paint their bodies rubs off on it somewhat when they lie down and adheres to the cotton.

/49 cont. /

8. Basketry

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• (824) Basketry is carried on primarily by the women. The only exceptions are temporary carrying-baskets of natural palm leaves, which are made by both sexes, and carrying-baskets of curauf, the making of which falls to the men.

(824) If the Indians need a temporary carrying-basket in the forest, they simply place two pinnate palm leaves close together on the ground (most often they use for this the leaves of the patauf, açai, and ubim palm) and interweave the inner sides to make a firm surface. Then both leaves are bent over at the upper end, which makes the bottom, and on the outside a braidlike rim is plaited (ill. 32). By means of a carrying-band of embira, very heavy loads can then be carried with this basket, called pakokêhe, above all fruits, but also pieces of large game, for example, tapir, which the hunter alone cannot carry into the maloka. Men always slip the carrying-band over upper arms and chest, while women prefer the forehead for this.

285
191 Similar baskets are found among the Karaiiben /Carib/ and Aruak /Arawak/ tribes of Guiana (269), as well as among the

269. Roth, 1924, p. 379 and Pl. 124.

Urubu in the Brazilian state of Maranhão (270). Similar specimens,

270. Lopes, 1932, p. 147 and Fig. 6.

however, are used by the Nahukuf /Nahuqua/ and Baka'rf /Bacairi/ in the Xingú source region (271), to mention only a few more

271. Max Schmidt, 1904, pp. 500 ff.
and Figs. 13 and 14.

examples, which, however, could be augmented at will. It is seen from this that many tribes were in a position to make carrying devices out of natural palm leaves.

Surára
Pakidái
Shiriana

/49 cont. /

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More highly developed is the carrying basket which consists of bast strips of the curauf plant (Ananas sativus Sch.) --

- [824] uaramá. It is made by the male members of the tribe in the following manner: Two groups of plaiting strips are laid on top of each other in different directions and then interwoven with a third group of strips running in still another direction (Ill. 33).

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071

This, according to Max Schmidt's classification, is the third principal type of South American plaiting (272) (273). This type

272. Max Schmidt, 1904, pp. 490 ff.

273. Max Schmidt, 1905, pp. 330 ff.

of basket (274), which is very widespread in South America, is

274. Abundant comparative material is to be found in Roth (Roth, 1924, pp. 321 ff. and Pl. 100 B and 102) and Mason (Mason, 1904, pp. 529 ff. and Pl. 240 (1, 2).

also regarded as very old, but today is seldom used any more by the Surára and Pakidái. Nothing concerning its origin is known any more among the tribes named. An autochthonous development is possible, but an adoption from Karaiben or Aruak tribes, who use similar baskets, is more probable. The same basket is [177] likewise confirmed for the related Karimé (275).

[184]

275. Salathé, 1931/32, p. 302 and Figs. 9 and 10.

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The one most frequently used at present is the women's large carrying-basket made of liana strips (276) -- wuêka --, which has the shape of a somewhat elongated semicircle' (Ill. 34).

276. Each individual liana is split with the teeth into several flat strips. (Cf. also p. 101).

Surfara
Pakidai

/51 cont./

285
192
824
• [824] Then there are small baskets with handles and square bottoms -- yochifles -- (Ill. 36), in which women keep their ornaments, arm, leg, and chest cords, the spindle and balls of cotton. To make these, split lianas are again used. The technique employed is very primitive, for the plaiting strip is merely led alternately over and under a plaiting strand (287). The shape of

[184]

287. Max Schmidt includes this technique in the first principal group of South American plaiting (Max Schmidt, 1904, pp. 492/93).

these little baskets seems to be peculiar to the Surfara and Pakidai, for in the literature I have not yet found a corresponding description with reference to other tribes.

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Simple plaited fire-fans -- aulidana -- are made of the leaf-stalk sheaths of the tucumã palm (Astrocaryum sp.). They have an elongated shape, and the ends of the strips are tied together to form a handle (Fig. 22).

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171
Similar fans, but more evenly worked, were found by Koch-Grünberg among the Makiritare, Yekuanã /Yecuana/, and Guinã in the catchment area of the upper Orinoco (288), from which one

288. Koch-Grünberg, 1923a, p. 345
and Pl. 24, 6.

might conclude that this object reached the Surfara and Pakidai from here, probably by way of the Xiriãna. The reverse route might also be possible, however, if only because most of the Karaiben and Aruak tribes of Guiana use fire-fans with a handle set crosswise (289).

289. Roth, 1924, pp. 291 ff., Pl. 78,
79, and Fig. 91.

Surata
Pekidai

/52 cont. /

9. Band for Carrying Children

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[824] The band for carrying children -- okomakuf -- is made from the bast of an embira tree (Daphnopsis brasiliensis Mart.). For this purpose thin trunks are cut down by the men. Then the women remove the bark and /53/ with a bast beater -- xamotimá -- (a piece of wood 30-40 centimeters long, from the embira tree) beat on the trunk for 1-2 hours. Through this the bast -- uarimaxike -- becomes loosened, soft, and pliable, so that finally it can be easily peeled off the trunk -- pekehik -- (Fig. 23a-c). Then the two ends are slipped into each other and sewed double with a thread of Bromelia fibers or cotton. The holes are pierced beforehand with the little cutia-tooth knife (see p.117), and then the thread can be drawn through without effort.

854 The carrying-band is always slung over the right shoulder so that the right hand remains free for work, and it ends at the level of the left hip (Ill. 15), which gives the sitting child additional support if the mother puts its legs around her body.

[171] This carrying method is very widespread in South America and is also employed by tribes that do not use the carrying-band (292). Among the Xiríána Koch-Grünberg does not seem to

292. See, for example, Koch-Grünberg 1923a, Pl. 45.

have seen such carrying-bands, for he says nothing about them.

10. Receptacles

415
824 As receptacles, the fruits of the Bignoniaceae (Crescentia cujete Lin.) and Cucurbitaceae (Cucurbita lagenaria Lin. and Cucurbita idolatrica Lacerda = jamaru), which offer a variety of shapes (ball shape, bottle shape, cucumber shape, and others), are used principally.

[92] These vessels in general are called -- horotoká --, except for those of the jamaru fruit (Fig. 24), which are called -- nhapotosma.

Surára
Pakidai
Shiriana
Waiká
Karimé

/53 cont./

- 415 Fruits cut in two furnish correspondingly shaped bowls --
 824 maraká. In order to cut them, men or women tie curauá fibers
 around the fresh fruit and then scratch along this with the little
 [386] cutia-tooth knife (see p.117). On the inside all the bowls are
 given a black coating, which is made out of the charred wood of
 the pupunha palm and the oily yolk of turtle eggs or cayman fat.
 415 A few families also have black, thick-walled, undecorated
 323 clay vessels -- haboká -- with a round bottom, which are poorly
 [438] fired and break easily. I was told that they come from the Xiriána (293).

293. The name, too, is almost the same
 among the latter -- "hapóga" -- (Koch-
 Grünberg, 1928, p. 304).

for the Surára and Pakidái do not practice pottery themselves.

- 323 On the other hand, this craft is also familiar to the Waiká and
 184 Karimé, and, to be sure, they make vessels of the same shape as
 described above (294) (295). /Fig. 24 appears here./

294. Zerries, 1956a, p. 184.

295. Salathé, 1931/32, p. 302 and
 Fig. 12.

- 123 My pots and pans of aluminum, brought along as gifts, were
 415 highly prized by the women of both tribes, as were empty gasoline
 cans and food cans.

/54/

11. Tools

- 412 Primitive tools, which consist of teeth, tortoise shell, bone,
taquara, bamboo, and wood, are few.

The most important one, and reserved exclusively for male
 [192] use, is a small knife made out of the sharp tooth of the cutia
 [237] (Dasyprocta aguti L.) -- tomenáke --, which every Surára and
 Pakidái wedges under his left upper-arm cord while traveling and
 on hunting and war expeditions (Ill. 31) (296). The lower part

- [301] 296. The women use the cutia teeth as ear
 ornaments (see p. 86).

suréya
Pakidai

412 /54 cont. / The lower part
[314] of the tooth is firmly anchored with tree resin in a tubular bone
[230] of the jacamim (Psophia crepitans L.) -- nyapín -- which at the
[192] same time serves as the handle and is called -- nyapínmatáz --, and this part of the shaft is additionally wound with a thread of cotton or curauf (Bromelia fiber) (Fig. 25). /Fig. 25 appears here. /

With this small knife the arrow cane is bored to insert the tip, a wooden shaft, or the notched hand-end. The crudely carved bamboo points are improved and sharpened with it, as

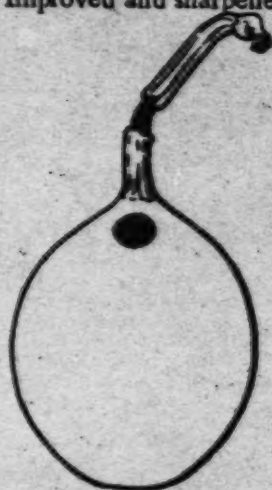


Fig. 24. Jamaru fruit.

are the points of bone and wood. It is also used, however, to bore holes in the hearth, that is, the horizontal piece of wood of the fire-making apparatus, and to cut a groove at the side. The
[531] serpentine lines and zigzag designs are put on the quiver with it,
[593] and finally it is used by the men to make deep gashes on the bodies of their wives for reasons of jealousy. Almost all the women have large and small scars from this; they always showed them to me with a certain amount of pride, however, as a sign that they are, or were, beautiful and desirable.

412 Other tribes of Guiana, too, and those that in the rest of
[184] South America are part of the remnants of the original stratum
[191] use these small knives. They are documented for the Waiká by

Waica
Karimé
Shiriana

412 /54 cont. /
184

Zerries and Schuster, (297) (298), for the Karimé by Salathé (299).

297. Zerries, 1956a, p. 184.

298. Schuster, 1958b, p. 17.

299. Salathé, 1931/32, p. 306 and Fig. 16.

[237]



Fig. 25. Small knife
made out of the sharp
tooth of the cutia
(Dasyprocta aguti L.).



Fig. 26. Knife made out of
the ventral shell of the peréma
(water turtle).

[284]
[824]

and for the Xiriána by Koch-Grünberg (300). The latter, however,

300. Koch-Grünberg, 1923a, p. 313
and Pl. 47 (9).

says that the Xiriána lash the tooth to a wooden handle by means
of Bromelia fibers (301). In the same place Koch-Grünberg likewise

301. Such a knife is to be found in the Hamburg
Museum für Völkerkunde und Vorgeschichte
Koch-Grünberg Collection, 12.25:108).

shiriana
surara
pakidai

/55 cont./

412 knives are sometimes bound to a pointed wooden handle. This
184 strengthening, however, certainly was not added later, but rather
is simply the shaft which the Xiriána, unlike the Surára and
Pakidái, mount on their arrow points (see p. 43).

412 For cutting hair and shearing off the tonsure, decidedly
462 women's work, a split piece of reed sharpened on one side
302 (taquara -- Guadua sp.) is used.

412 Such "knives" are also widespread among the South American
171 Indians; Prince zu Wied-Neuwied documents them for the
Botokuden (307).

307. Prince zu Wied-Neuwied, 1821,
p. 9.

412 Another important tool is the eyetooth from the lower jaw
237 of the wild pig -- manacoauá --, with the inner edge of which
the men smooth their bows.

[184] This tool is also used for the same purpose by the Waiká (308).

308. Schuster, 1958b, p. 17.

412 For work in the fields the men use a digging stick somewhat
[192] flattened at the lower end and 2-2.20 centimeters long --
[824] namunamutehí --, which they make out of the hard wood of the
pupunha palm (Guilielma speciosa Mart.); as a substitute they
also occasionally use an old, broken bow-staff.

[184] Zerries also observed the latter practice among the Waiká (309).

309. Zerries, 1956b, p. 153.

413 A piece of round wood from the trunk of the pupunha palm
462 should also be mentioned; it is used by the women as a bast beater --
xamotimá (see also pp. 112/114).

412 This exhausts the use of primitive tools. Even in olden
177 times, there were certainly not many more. During my stay
among the two tribes, however, I saw them already using steel
axes, as well as terçados (large bush-knives) and small knives.

Surata
Pakida

/62 cont. / The father

844 of the child later hangs it on the tip of a pupunha palm
[824] (Guilielma speciosa Mart.), which is connected with fertility
[842] magic; he buries the afterbirth in the planting. Two confine-
ments which I was able to observe were very easy and quick.

[142] On the lower part of the children's back I could see in each case
the grayish-black spots of pigment, the so-called Mongolian spots.

844 Immediately after birth, the mother with her baby took a
846 bath at the nearby riverbank and then lay down in her hammock
for one or two hours. After that, with the baby on her arm, she
already went back to her customary occupation.

845 If a complication arises during confinement, the chief, who
[622] is at the same time the witch doctor, is fetched.
[156]

845 In contrast to most other Indian tribes, twins are reared.
847 If there should be triplets, which so far has never occurred, one
child would have to be killed, for, as they said, the mother has
only two breasts. Deformed children are killed and thrown into
the river.

852 There are no birth ceremonies, for up to its third year of
851 life the child belongs to the flesh and blood of its mother and
553 is not given a name before this.

854 d) Infancy and early childhood

The infant or young child is not left alone for a moment.
When the mother attends to her housework or gathers fruits and
berries in the forest, she carries it in a carrying band of tree bast
on her left hip, so that she has the right hand free for her work.

853 Even at night it sleeps with her in the hammock. The breast is
constantly at its disposal, so that it never /63/ thinks of sucking
its finger. This may perhaps also explain why these Indians have
such a perfect set of teeth. As soon as the teeth start coming in,
the child is given tough meat to chew on, in order to facilitate
teething. At the same time the long period of nursing, along
with abundant sunshine, prevents rickets. After 3-4 months the
baby is given supplementary food in the form of cooked, green
mealy bananas (Musa paradisica normalis), which are prechewed
by the mother, or a porridge made out of manioc flat-cakes.

Surfra
Pakidai

/64 cont. /

553 high mountain ridges -- hekurá --, who represent the intermedi-
 776 aries to Poré and Perimbó, the joint Supreme Being of these
 [782] Indians (see pp.197/199). The particular animal or plant whose
 name a child bears is regarded as a sort of "spiritus familiaris"
 [777] throughout its life. This is linked to the idea that the fate of the
 child has now become identical in essence with them; that is to
 say, good fortune, but also the suffering and dying of animals and
 plants are transferred to the like-named human beings.

553 The use of animal names corresponds to the nagualistic
 114 ideas and customs which Eduard Seler mentions in his monograph
 191 /65/ on Michuacan /Michoacán/ (326), while plant names are

326. Seler, 1908, pp. 104/05.

also included under the same aspect by the Surfra and Pakidái.
 The name "nagual," according to Seler, is derived from the Aztec
 word naualli = disguise (327). In place of nagualism, however, the

327. Seler, 1904, pp. 75/76.

technical term "tonalism" may also be used (Aztec tonalli = some-
 one's destiny, fate, soul, spirit...) (328).

328. Haekel, 1958, p. 45.

553 On the day of the name-giving the children are given a
 302 tonsure such as is worn by all adults of both sexes. It is shaved
 [412] off with the sharpened side of a split piece of reed (taquara --
 [824] Guadua sp.). Simultaneously they are attired for the first time in
 553 the hip cord of cotton or plant fibers, which they may then never remove
 291 up to the end of their lives, not even while bathing or during sleep.
 The cord must, of course, be renewed occasionally, but this is
 done in all secrecy. At the time of the donning of the hip cord by
 little boys, the penis is tied up, with the preputium held fast under
 [834] the cord by means of a loop (Ill. 22). From now on the penis must
 [292] no longer hang down, for this would be an offense against good
 form. On festive occasions a belt of cotton is also tied around
 children (see pp. 64 ff.).

Surá'á
Pakidá'i

/66 cont./

595 The Surá'á chief has two wives, a third one died, and the
587 Pakidá'i chief, who is still comparatively young, has one. Vari-
ous other men also have two or more wives. If the husband dies,
these women, without being able to decide for themselves, are
taken on, along with their children, by one of his brothers, the
younger one as a rule, even if he is already married.

835 Bachelors have the right to sexual intercourse with the wives
of their older brothers, and thus the children of these women do
not call them uncle, but likewise father.

881 h) Puberty rites for girls

At nine to ten years old, the Surá'á and Pakidá'i children
have already reached maturity, which is probably related to the
fact that these Indians live in the hot, humid rain forests of the
equatorial zone. There are no initiation rites for boys. A girl,
[302] on the other hand, at the onset of her first period, is kept isolated
in a circular pen 3-4 meters in diameter, which is erected a short
distance from the maloka; her entire body is painted with urucú,
a red plant pigment. Here the little one must sit motionless and
receives only once a day from her mother a calabash of banana
soup and a second one of water. In the evening she is brought into
the communal house, so that she can lie down to sleep there, but
neither parents and siblings nor other members of the tribe may
881 speak to her. The next morning she is put back in the pen. Dur-
304 ing the second day her mother or another woman applies a pin-
point tattoo above her upper lip, which extends downward on either
side of the mouth to the chin. The tattooing instrument is a
[413] pointed thorn of the pupunha palm. This is dipped into the dirty-
[824] gray juice of the genipap fruit, which, after the skin is punctured,
[386] leaves a dark blue dot. This procedure is extremely painful for the
[147] little girls. Yet they bear it with passive faces, suppress their tears,
and do not utter a sound. With this tattooing, all the evil, mysteri-
ous forces which are in the menstrual blood, and which might bring
danger to the husband, are banished for the rest of a woman's life.
881 With the second onset of the period, too, a girl is again isolated,
and after that a small celebration takes place.

SURÁRA
PAKIDÁI

/81/
192 Designation of the Surára
245 and Pakidái:

Designation of the regional
caboclo population:

pakatarimã

pacovão

kuratá pauximf

inajá

nakaximf

São Tomé roxa

rokojá

São Tomé branca

rokoma

banana maçã (?)

parauf

caité

roórenvökâkô

banana bajé

xiahfma

Banana governo (375)

(22)

375. Unfortunately, I could not carry out
a botanical classification of these varieties.

245
412
824

With the help of a digging stick made from the wood of the
pupunha palm and 1.60-1.80 meters long, which has a flattened
point at the lower end (Ill. 38), or a broken bow-staff, cuttings
of banana trees are planted in the clearing, and after only a few
months they are full-grown and bear fruit. The work of planting
as well as the care of the plants falls to the men, while the
women help only with the harvest (376).

(462)

(184)

376. Among the Waiká, the plants are
cared for by men and women (Zerries,
1956b, p. 153).

Besides the banana, the pupunha palm (Guilielma speciosa
Mart.) -- komunamã -- is cultivated to a considerable extent.
Cuttings are used for planting, but occasionally seeds as well.
These palms, which always stand between the bananas, give
the clearings of the Surára and Pakidái a characteristic stamp
(Ill. 37). The trunk, 18-20 meters tall, which is covered with
pointed thorns -- mífmicibá -- and can therefore be climbed only

(481)

Sutara
Pakida

249 /82/

Besides the cultivated plants used for food, some are raised to be used for enjoyment. These are primarily tobacco (Nicotiana tabacum) -- peenake -- (387) and a pepper plant (Piperacea sp.) --

387. The Waiká word for this is "be" (Zerries, 1956b, p. 154).

maxarahá -- (388) which is required for making the narcotic

[114]

388. This plant is also cultivated by the Waiká and is designated by almost the same name "masho hara" (Zerries, 1956b, p. 154).

snuff-powder (see pp. 192), as well as -- peraki -- (389)

389. The Waiká call this pepper plant "blaki" (Zerries, 1956b, p. 154).

(Piper caudatum Vahl.), Portuguese pimenta-dos-índios, with which they spice their food.

249
824

Finally, the cultivation of plants yielding important required articles should be mentioned. These are arrow cane (Sagittaria montevidensis Cham. et Schl.) -- xerekasbe --, the urucuzeiro (Bixa orellana L.), from whose seeds, found in a thorny capsule, the red coloring matter urucú -- nará -- is obtained (see p. 122), as well as a Bignoniaceae (Crescentia cujete Lin.) and Cucurbitaceae (Cucurbita lagenaria L. and Cucurbita idolatrica Lacerda), the fruits of which are used as vessels (see p. 114).

248

The cultivation of cotton (Gossypium barbadense or hirsutum) -- xinarf -- is of comparatively recent date.

252

8. Preparation of Food

[462]

The preparation of solid food is almost exclusively in the hands of the women, but the roasting of game is reserved for the men (390). There are two methods of doing this: The simplest

[77]

390. According to Baldus, this prerogative

Surára
Pakidái

/85 cont. /

9. Meals and Eating Habits

264
262

In the morning the Surára and Pakidái eat very little, usually only one or two bananas or tubers roasted in the hot ashes. I often found that men and women set out to hunt or gather without having eaten anything. If they come across wild fruits on their wanderings, however, they help themselves generously. Small, light meals in the form of banana soup, roasted or steamed bananas, pupunha fruit, sweet potatoes, etc. are eaten at noon. Sometimes there are some leftovers from the meat of the day before. The main meal of the day does not take place until after sundown, by the light of the blazing fire. For at this time the whole family is usually assembled again, and the hunting booty which the man perhaps brought home in the afternoon or the products of the gathering by the women have been prepared. Everywhere one sees the men squatting beside the fire and waiting for food, which includes larger or smaller pieces of meat supplemented by vegetable fare. In front of them the women have spread out a few palm leaves as an underlayer for the food. The men eat first, and they also get the best pieces of meat. When they are satisfied, the women and children may start eating. Nothing is drunk during the meal, but afterwards a palm-fruit or honey drink is enjoyed.

• [264]

264

Eating is done with the hands. In one hand the Indian holds a piece of roasted or boiled meat and in the other a roasted banana, a manioc flat-cake, or something similar. Intermittently one reaches into the pot and takes out another piece or cuts it off from the wooden spit or roasting rack. Soups are drunk out of gourd bowls or calabashes, just like the palm-fruit and honey drinks.

[415]

[251]

If the hunters' bag was particularly good, one may observe many Indians, men, women, and children, eating all night long, for meat is preserved only before festivals. In connection with this the individual members of the family lie comfortably in their hammocks, converse, sleep a little at intervals, then fetch themselves another piece of meat from the roasting spit or rack. It is

[267]

astonishing what quantities they consume during such a night. On the other hand, they are also easily able to fast for a long period of time.

Surárá
Pakidái

/87 cont. /

- 231 In the evening the monkeys climb the tallest trees in order to spend the night in their crowns, and the birds, too, occasionally fly away. But all the animals come back, for, of course, they were tamed when small and are very attached to the Indians, who /88/ always treat them affectionately. They take the trouble, with great patience, to train the parrots and parakeets to talk, and they are happy when the first results appear.

11. Luxuries

276

The Surárá and Pakidái use only two luxuries, tobacco -- peenáke -- and a snuff powder -- epená. The former serves for profane purposes and the latter exclusively for ritual use.

Tobacco is not smoked, however. The leaves are pulverized in the green state, mixed with wood ashes and water or saliva, and twisted between the hands into small rolls. These are then inserted between the lower or upper lip and the teeth, where they are sucked. Both sexes, including children, indulge in this enjoyment, which also is connected with a very practical purpose, for, as a result, the Indians are able to walk around all day in the forest without feeling hungry or thirsty; but their attractive faces are quite distorted by the tobacco roll (Ill. 41).

- [184] Tobacco is used in the same way among the Waiká, but
● [824] here, according to Zerries' account, the roll is inserted only between the lower lip and the teeth (426) (427). The investigator

426. Zerries, 1956b, p. 154.

427. Zerries, 1958c, p. 180.

named also mentions the occasional use of wild plants as substitutes in case tobacco is lacking (428) (429). Among the Surárá

428. Zerries, 1956b, p. 154.

429. Zerries, 1958c, p. 180.

Surára
Pakidái

/110 cont. /

527 Between the patapšanornão festivals the Surára and Pakidái have only a few other festivities in the course of the year. These are but small celebrations, which, for example, take place after the two-months' training of two young men as medicine-man helpers, after a successful war-expedition, upon moving into a newly erected maloka, and in connection with the second menstruation of a girl. The latter has more of an intimate character, for only families of relatives and friends take part in it.

4. Magic for Sickness, Hunting, Love, and Rain

754
825 a) Magic for sickness:

•(824) A magic powder is occasionally prepared from the bark ashes of a wild mimosa species (Mimosa acacioides?) -- hekuráhihená -- (see also p. 192) and the bone powder of the gavião-real (Thrasaetus harpyia L.). In the evening, shortly before twilight sets in, if a gavião-real happens to be flying by or is sitting on a tree, the chief blows this powder in the direction of the bird. The latter receives it and with it transmits sickness to a specific hostile tribe.

224
789 b) Hunting magic:

789 The evening before a proposed hunting expedition the
[782] hunter takes snuff-powder and prays for about 2-3 hours to the hekurá (see pp. 200/201), whereby through them he requests
[302] Poré and Perimbó (see p. 197) for a successful outcome. Then, before he sets out the next morning, he paints serpentine lines
[825] on his face and body with urucú. If his wife accompanies him, she also applies this design, and the snout and feet of a dog that is taken along are painted with the same color. This is
[951] supposed to increase the luck of the hunt and is at the same time bound up with defensive magic against possible dangers threatened by poisonous snakes and jaguars.

Surara
Pakidai

224 /111 cont./
171
114

Métraux also documents for the Chiriguano (541).

541. Métraux, 1931, p. 154, footnote 1.

It should also be pointed out that the hunting rule so strictly observed by the Surara and Pakidai men, which says that a hunter may never carry his game into the maloka himself, can probably be traced back to Karaiben /Carib/ influences. In this connection Zerries speaks of propitiatory rites relating to the killed animal (542). According to his investigations, the

542. Zerries, 1954a, p. 359.

northern region of South America emerges as the nuclear area, where they are found primarily among Karaiben tribes of the Venezuelan coast and its hinterland (543). The author cites

543. Zerries, 1954a, pp. 136/37, 359/60.

Roth (544) and Crévaux (545) as the most important sources, as

544. Roth, 1915, p. 294.

545. Crévaux, 1883, p. 283.

well as the very old report by Rochefort (546), which shows that

546. Rochefort, 1658, p. 451.

even the Island Karaiben were acquainted with this custom.

832 c) Love magic:

- [824] For the purpose of love magic, young men sometimes wear a curaus-fiber string around the neck, to which is fastened a small piece of the root of the tajá (Colocasia antiquorum and Xanthosoma violaceum Schott) hanré -- (see p. 83). If the

Surára
Pakidái

/111 cont./

- 832 wearer bites on it and holds it under the nose of a girl or a woman, he gains her favor through the fragrances emanating from it. In fact, I was told that love will then be so great that the woman or the girl would follow him everywhere (547).

547. This type of love magic is reminiscent of a myth of the Aruak /Arawak/ Manao: The Aromatic Root. (Baldus, 1958, pages 32 ff.)

In order to protect themselves from this love magic, married women use two kinds of neck chains. Younger ones

● [824] have tied to their string of curauá fibers numerous small pieces of tajá root, and older ones, small pieces of the camarau liana (Cipó sp.) -- hif -- (see p. 83). These many pieces of root or liana then counteract the effect of the young men's single piece of root.

754 If a man is angry at a woman because she does not give him a hearing, he can avenge himself in the following manner:

- [824] On a rainy day he tears off a leaf of the pupunha palm (Guilielma speciosa Mart.) and goes with it into the forest. When he reaches a matamatá tree (Eschweilera matamata Hub.) from which /112/ drops are falling, he lays the palm leaf under the tree. He leaves it there until it has rotted. Out of it comes a worm which the man later fetches and then roasts. If he throws this upon the sleeping woman, she will have no more children.

789 d) Rain magic:

821 Although the Surára and Pakidái appreciate rain more than too strong a radiation from the sun (548), there are occasions when

[191]

548. In contrast to this, I should like to point out that among the Taulipang, for example, there is great fear of rain (Koch-Grünberg, 1916, pp. 130/31).

Surára
Pakidái

/112 cont./

789 it is not needed, for example, before hunting expeditions or
[821] during a tribal migration. In this case all the men, women,
[302] and children paint their bodies with a confusion of serpentine
526 lines, in order by this means to command the rain to stop. If
789 this does not help, a tug of war -- toótótó -- with a thick liana
[796] is arranged. This liana personifies the sucuriju (Eunectes murinus) --
uaikonyá -- which, as a strong water-animal, has the power to
induce Poré to stop shaking the rain tree (see p. 199). At first
only two groups of red-painted men engage in the tug of war.
But if the rain simply will not abate, red-painted women also
take part in it. Their participation is supposed to increase the
[796] pressure on the sucuriju, for it is assumed that it is of the female
sex and thus particularly well-disposed toward women. Such a
[857] tug of war often goes on for several hours. In most cases, be-
sides adults, I also saw children who imitated it with a thin liana.

526 If it happens to rain while the sun is shining, the Surára
789 and Pakidái believe that a serious fight has broken out between
821 the moon, from which the rain comes, and the sun. Then all
the members of the tribe feel obligated to come to the aid of
their Supreme Being, the moon. They do this by again forming
two mixed groups of men and women -- one symbolically rep-
resents the population of the moon and the other that of the sun --
who throw wet earth at each other; this "battle" is called xejejó.

782 5. A Special Way of Showing Gratitude to Poré and Perimbó

In connection with the festival in memory of the dead (see
pp. 224 ff.) after the training period of the two medicine-man
helpers (see pp. 143 f.), after the curing of the sick (see pp.
211 ff.), and other magic ceremonies, the people want to thank
Poré and Perimbó (see p. 187) in a special way, outside of the
customary prayers which take place through the hekurá (see pp.
199/201). For this purpose a large calabash is filled with earth,
• [824] into which, in a circle, are stuck red-painted twigs of the
imbauba tree (Cecropia palmata Wild.), which are connected

Surára
Pakidái

/112 cont./

782 with threads of Bromelia fibers. Such threads are also drawn
 (824) crisscross over the sticks, and on them are glued down-feathers
 (237) of the gavião-real (Thrasaetus harpyia L.). The structure --
akmanohé --, which women and girls are not permitted to see,
 gives the effect of a man's head, in the hair of which are glued
 down-feathers of the gavião-real. By order of the chief, several
 warriors take this calabash into the forest and set it down in a
 particular spot.

6. Birds as Transmitters of Messages

825
202 On May 21, 1956, in his maloka on the Cachoeira dos
 Índios on the upper Rio Aracá, a Surára man, Honohomá, was
 engaged in a loud monologue which started about 4:00 in the
 morning and lasted until about 6:00; during this he was lying in
 his hammock. As to the meaning of this apparent monologue,
 (114) my little interpreter Jibeauwō afterwards gave me the following
 explanation: When Honohomá woke up, he heard the singing
 of the little bird kaukaumã, a japim (Cacicus cela L.); in which
 at the time, however, the soul of Poréhiwō, the war chief of the
 Pakidái, was to be found. The latter was living with his tribe
 in the /113/ maloka on the middle Demini. The soul in the
 little bird said that the Pakidái, after the festival in memory of the
 dead, had arrived safely at their communal house. At the same
 time it reported the course of the journey in detail, the hunting
 successes, and the planting of new banana trees and pupunha
 palms. Whenever the little bird interrupted its song for a time,
 Honohomá would tell it about how the Surára were getting along.

According to the belief of the two tribes, the little japim
 is a transmitter of messages, who reports illness and death, as
 well as military encounters with hostile tribes.

/200 cont. /

162

C. Sanemá of the upper Ventuari (Nabudub)

<u>Locality</u>	<u>No. Inhabitants</u>	<u>Observations</u>
1. Wewēna	50	The Nabudub of Ihudūna frequently move between the Ventuari and the Erebatō.
2. Wadekuña	80	
3. Mahanaña	50	
4. Ihudūna	200	
Total	380 estimated individuals.	

161

According to this demographic estimation there are approximately 2,150 Sanemá in the zone of the upper Ventuari, Erebatō, and Caura. We do not know how many Sanemá live on the Padamo.

342

We have seen four different types of houses among the Sanemá: (a) windscreen type, (b) triangular in shape and Makiritare system, (c) rectangular, and (d) oblong. We have found types (a) and (b) together in the same encampment on the Ventuari, facing Caño Mosquito.

342

361

[501]

[137]

[262]

On our trip through that place we saw two Sanemá rafts moored on the bank of the Ventuari. We later climbed a cliff and followed a path which led us to a conuco of the Sanemá. At one end there was a gigantic algarroba tree laden with fruit. Judging from the skins scattered on the ground, we realized that the Sanemá had consumed a great quantity. Near the tree, which in times past offered them /201/ its generous shade, we found a desolate Sanemá encampment. It was made up of five triangular huts and two of the windscreen type. Both types of construction seem to be typical of the Yanoama and are remarkable for their size, somewhat small. For the construction of a triangular cabin six poles 1.60 meters long are needed to serve as posts or supports. Three pairs are made out of them, each bound at the upper end with a bejuco, and with some 30 centimeters left free in order to form a fork. The lower parts of the poles are stuck into the ground at a distance of half a meter.

342

These forks in tepee form with a separation of two meters form a regular triangle. Three sticks are later placed on the forks, and these support the roof made of platanillo /Musaceae/ leaves. A similar rancho was described by Koch-Grünberg (1923, Pl. 43).

• [224]

/202 cont. /

412
[184] (Zerries, 1956a), Casapare (Koch-Grünberg, 1923, p. 313 and Pl. 47), Karimé (Salathé, 1931-32, p. 306 and Figure 16), Surará and Pakidai (Becher, 1960, p. 54). The handle of the knife, [171] relatively short, may be made of wood or of a simple piece of bone; it is in style also among the Guayakí (Hitte, /203/ 1897, Pl. III, Figures 4 and 6) and the Sirionó (Holmberg, 1950, p. 14), both tribes with a primitive culture.

[237] In order to smooth their bows, the Sanemá use the tusk of a
[179] peccary. Before the introduction of iron axes they used stone axes, which are still found among them, although rarely.

411
• [324] The most important weapon of the Sanemá is the bow and arrow. The bow, plano-convex, 2-2.10 meters, is made of macanilla wood. In the middle it measures 2-3 centimeters in width, which tapers to 0.5 centimeter at the ends. The bow-string is made of plant fibers. The different classes of arrows which they use are distinguished according to the different points that they have. Their total length varies between 1.60 meters and 2.40 meters (cf. Méndez-Arocha, 1960, pp. 54-60). This latter trait of having arrows of this length is another characteristic of the nomadic Indians of the Tropical Forest. The arrow points vary according to the game that they wish to hunt. The bamboo point, lance-shaped, is for large game; for medium-sized and small animals they use arrows whose point is made of monkey bone. There is another point of wood which they poison with curare and which they use as a weapon of war (cf. Koch-Grünberg, 1923, Pl. 47; Becher, 1960, p. 18). The lower part of the arrow is provided with two halves of a turkey feather, in the manner typical of the tribes of Guayana.

[627] Another weapon for combat is the club 1.50-2.50 meters in length and of heavy wood, which they use to settle local fights and which reminds one of the clubs of the Botocudo of Brazil.

291 Sanemá dress is the simplest. Both sexes wear a cord tied about the waist. The men carry the penis fastened up by the prepuce. Among the Nabudub we saw several women who wore no clothing other than the above-mentioned cord; most of the Sanemá, however, use a guayuco of cotton thread, dyed with onoto and in the same manner as the type Becher describes (1960,

/208 cont./

241
[177] Among the Sanemá, doubtless as a result of their contact with their Macú and Caribe neighbors, agriculture has taken on increasing importance. The manner of cultivation is still very rudimentary, that of "slash and burn." The principal products are: plantains, bananas, sweet and bitter yuca, ocumo /malanga/, and certain herbs which have magical importance (cf. Barker, 1953, p. 444, similar plants among the Waica). Among the magical plants of the Sanemá there is one on which they lavish great care. An informant told us about the general consternation which seized all of them one day when a band of enemies tore up, during the night, all the magical plants of their conucos. They believed that they were going to die or at least become sick, and the "sablí had much work" in order to save his people. There is here a similar belief which we have already noted in connection with the eagles and hanekasá.

241
[178]
[628] Agriculture has given a degree of stability to the Sanemá subgroups and has introduced changes in their traditional social system. Not all the groups have adopted this new economy and disputes and fights frequently arise because the gatherers indiscriminately appropriate the products of a conuco of the agricultural group. That was the motive which caused the Makiritare to fight with the Sanemá, who at that time had still not adopted the agriculture which flourished among their neighbors.

231
[192] The Sanemá do not have domestic animals, and even dogs are uncommon. It is possible that the Yanoama have adopted them recently. They have still not found a specific name for this animal, and they call it póliawan, like the jaguar. Some informants insisted that there is a phonetic difference between the word pólawan = jaguar and póliawan = dog, but there cannot be the slightest doubt but that the same word is involved. They raise dogs so that they may serve them as helpers in hunting.

In a Sanemá rancheria there are frequently found animals of various species, but tame. The hunters take home young turkeys, cranes, macaws, and parrots, as well as guinea pigs, lapas, and monkeys, as presents for their wives or children. /Illustrations appear here./

THE EARTHLY PARADISE

Barbasco is a kind of liana which can grow to impressive dimensions—²⁷⁸ attaining a stem up to eight inches thick. The Indians cut it in the forest and ²²⁶ collect a large pile together at a convenient place for pressing. Their press is ²¹⁴ made from one of those dead trunks of hardwood which are found in such ⁽⁴¹²⁾ quantity in the forest and some wooden clubs specially cut for the purpose. The liana stems are pounded and then done up into bundles so that they can be easily taken to the place to be fished, which may be some way off. Here they are immersed several times in the river, releasing a milky juice which gives the water a whitish opalescence. The juice of the liana reduces the air content of the water through oxidation, and the fish very soon come floating up to the surface—asphyxiated but not poisoned.

This procedure is a very common one among the Indians, whose fishing ²²⁶ follows a two-year cycle—this being the minimum time needed for each ⁽⁸²⁵⁾ stretch of water to become repopulated after the use of barbasco. It goes without saying that this extract of liana loses its efficacy in anything bigger than a small stream. Nevertheless, in times of scarcity the Indians will attempt to fish medium-sized rivers in this way, banding together to collect huge quantities of liana. The fish taken are then smoked and wrapped in banana leaves, ⁽²⁵¹⁾ after which they will keep for months.

Ausai and his men had to go far afield with their barbasco before they found ^{123*} a suitable place. The probability was that the Shirians had already been at work, ⁽²²⁶⁾ unknown to anyone, near the source of the Canaraconi. We therefore left him to it after all, and returned to camp early one morning, just in time to meet the plane that was circling the field.

VI

On Sunday, the 24th June, a big plane came into sight over the rim of the Satisarillama mountains—towards the east where they merge into the Sococ range. It swooped down to about three hundred feet and then went off without giving any signal. The excitement among the Indians on the spot—Luis Antonio was one of them and he explained the nature of the machine to his kinsfolk—was doomed to disappointment. And time and again this story of the aeroplane continued to arouse our hopes, only to dampen them once more.

A week later it appeared, at the same time—so suddenly and unexpectedly

Not does

CAPTURED BY THE SAMATARI

the usefulness of the Corozo palm end here: it furnishes a hard, black wood that gives the Indians their finest bows, real masterpieces treasured with pride by their owners and only bought and sold with a great deal of ceremony.

The *lahsa* represents the Indian food-ideal. It grows in bunches up to eighty pounds or more in weight, each fruit being the size of an egg and in shape and colour not unlike a small, ripe cheese. Cooking it takes a long time. The outside is a thick starchy layer, orange-coloured and rich-tasting without being over-sweet or sickly. It is better than any of our starchy foods such as bread or potatoes or chestnuts or *gnocchi*. The whole of it is edible right down to the little stone itself. This is a kind of delicious almond which crumbles pleasantly under one's teeth and leaves nothing but an insatiable desire for more—hence its name, *lahsa*.

Lahsa can be carried: there are no doubts about this, as in the case of the *hamoshi*. Its golden bunches are big enough to cover up a man, and the carrier protects himself from the thorns on the branches with a good thick cushion of leaves. In the evening they are cooked, so that the grim-faced women of the tribe are able to produce their milk after all and tirelessly pass it on to the scabby, drooling mouths of their infants, who in their turn convert it into blood and yield it up to the clouds of flies and mosquitoes which wrap them round with a perpetual dark veil like an aura of evil and accursed spirits.

In recompense for its fabulous generosity, the *lahsa* tree has been accorded one great privilege that sets it apart from all the other fruit-bearing trees of the forest: it is never cut down for the easier harvesting of the crop. The fruit is brought down by some clever manipulation of a long pole, for no climber's hands and feet could withstand the thorns. If in very special circumstances the tree has to be cut down, then its upper stem is opened so that its last, secret riches can be cut out—the ten pounds of sweet, crisp, chestnut-flavoured tenderness that is its growing point, the heart. Then the tree will weep out its tears from its torn breast, tears of wine that are kiet.

Certainly the tribes living nearest to the forest and the forest's deep anti-human mysteries have chosen the *lahsa* as their god of food: but we, a hybrid mixture of natural fears and supernatural thunderings, chose to set up opposite it our own saint, the yellow and most luscious *sopah*. When the marching horde reached a gnarled tree which evoked the quick cry '*Sopah!*' they flung themselves at it—such is their agility in tree-climbing that they literally seem to fling themselves up—and began a feast that reduced them to silence because

AT HOME WITH THE SAMATARI

there for the taking in the forest and the supply, from both animal and vegetable sources, is inexhaustible. 411

The bow is of surprising dimensions. It is six feet six inches long, this being equivalent, considering the height of the archer, to nine feet nine inches for us. The simplest pattern is made from the *sele* palm. They also use a hardwood—from a tree known in Venezuela as the 'golden pole'. This is very rare, almost as rare among the Indians as metal. But the finest bows of all, possessed by the few and worth a fortune, are made from the corozo tree, the *lahu* of the Shirians. This wood is extremely hard but very fibrous, with the elasticity of a steel spring. The shaping and fining down of these bows, and the making of the arrows, is the one form of craftsmanship known to the Samatari. With this they occupy themselves during the rainy season, under rough roofs of palm leaves. A tree belonging to the Moraceae family furnishes the very tough fibre for the bowstrings: it is found all along the river-banks and in the forest glades. 824 ● [213]

The slender arrows, six foot six inches long, are made from a cane cultivated in the secret depths of the forest, though it grows naturally on any of the river creeks which flood regularly. Curassow or guan feathers, split in half, are bound on to the cane. [237]

There are three types of arrow-head, according to the purpose for which they are to be used. The lightest is a splinter cut from the shinbone of a monkey, firmly fixed to the end of a short stick, in such a way as to form a sharp-pointed prong. This is used on small animals, and especially for birds and fish. There are numbers of big fish, like the *pampano* and *surapiri*, which lie near the surface so that a slight rippling of the water betrays their presence. The arrow which pierces them cannot be shaken out, and its length and weight make it difficult for the wounded fish to get very far. 411 [237] [226]

Another kind of point is virtually a miniature spear fashioned out of a very hard bamboo cane. Very sharp, and razor-edged, it will strike deep into the most resistant flesh, the toughest hide. The Samatari use this on the bigger game, such as tapir, and also for war—though for the latter purpose it is superseded by a specialized warhead. This is a sharpened splinter of palm wood—the same as goes to the making of the bows—dipped in a red poison made from the bark of a certain tree. A series of rings, four or five of them, are notched out round the arrow-tip, so that it is weakened at these places. If the tip strikes bone on entering the body, or if the arrow is pulled out, it snaps at one of these weakened parts, leaving the broken tip embedded in the flesh so that 726

/443 cont./

Domestic Animals

231

Dogs are raised and generally used in hunting.

Birds of almost all types are captured when they are found before leaving the nest. Most of these only survive a few days. It seems that the parrots manage to survive in captivity much better than the other birds, so that almost all the settlements have a domesticated parrot. Turkeys and cranes are included among the other birds which can survive and reach the adult state.

Domesticated monkeys are also favorite animals. It is interesting to observe that almost without exception the monkey is the property of a woman. Doubtless this is related to the fact that women nurse the little monkeys until they are weaned. The mother monkey must be killed in order to be able to capture the little monkey.

Small rodents, such as squirrels and vesper mice, are brought to the house sometimes to be domesticated. One family even went so far as to raise a wild pig (chácharo).

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/444/ When a domestic animal dies, it is incinerated outside the settlement, near some path. Its bones are left in the same spot where they were when the fire consumed them.

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Agriculture

Platanos and banana trees occupy nearly 90 per cent of the cultivated lands. Other fruits include sweet yuca, bitter yuca, ocumo /malanga/, mapuey /yams/, sugar cane, maize the pijiguao palm /peach palm/, pepper, the papaya, and the sweet potato.

Tobacco, cotton, and onoto /annatto/ are the principal non-edible products. Other nonedible products include a grass whose stem is dried and used for cutting the hair; a variety of root similar to the wild onion is used in magic for hunting, for obtaining a wife, etc.; especially fragrant leaves are used by the women in their ears; and the ingredients used in the processing of "yopo," a narcotic which is blown into the nose.

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824
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789
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276

/451 cent. /

- 251 The Guaike /Waica/ do not keep reserves of food. All of their foods are cooked fresh or at least within a period of two weeks from the time they are ready. Therefore, in case their conucos have a scarcity of produce, they must go to live in the forest, gathering seeds, fruits, and roots, and devoting more time than usual to hunting and fishing. When another settlement [228] has an abundance of food in a time of scarcity, it would be very fortunate to be able to live completely from this settlement instead of having to subsist from the forest.

Consumption of Food

- 263 No salt is consumed as such, that is, as salt properly speaking. They eat wood ashes, especially the ashes of a tree called [824] "kololi." The ashes may be eaten as they are or with hot water poured over them to obtain a tasty liquid. To this liquid, called "ubu," is added strong peppers. Platanos and other foods are dipped in the resulting sauce to flavor and ingest them.
- 261 Clay is also dried and eaten, especially the clay from certain nests of insects.
- [862] No child may be weaned until it has learned to eat the said ashes and clay.

Earth and clean dust are also eaten. They are considered clean if they are taken from a place where a fire has recently burned, from a river bed, or from a bare spot or bank of sand which the sun has been able to purify.

- 264 Their hours for eating are as follows: Breakfast is taken shortly after sunrise, and the second turn when they come back from work in their "conucos," generally at some time near mid-day. They eat again near /452/ sunset. This schedule varies, being adjusted for hunting trips, moving from the settlement, etc. They eat quite a lot between meals, especially wild fruits and bananas and ripe platanos.

/456 cont. /

Preparation of Basic Materials

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The Guaika /Waica/ make their arrow points out of bone. When they obtain a small piece of bone, they quickly transform it into a good arrow-point for killing birds. The long bones of legs and arms of monkeys are broken, and the sharp points which generally result have a form similar to that of arrowheads, are worked and finished, with the rest being thrown away. To give them shape, the points are scraped with knives or machetes and rubbed on some stone.

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I also saw a whistle or a flute which seemed to be made out of bone or out of a quill of large size.

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[824]

[239]

[412]

The Guaika make their bows out of wood. They generally select the wood of the "pijiguao" palm. They give it a rough shape, using the machete. They achieve the final form by scraping the piece with the jawbone of a wild pig, the teeth constituting the cutting edges.

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[239]

They do wood carving with a small knife, which consists of the tooth of a rodent. With this tooth they manage the fine work of putting notches in the arrows. They also shape bamboo arrow-points and the oblong lower part of the apparatus for making fire.

They devote as much as half a day to carving the handles for their axes and machetes. They use the machete to shape them.

323

The Guaika make their pots of mud. The clay is obtained in specific places. This frequently requires a day or more of travel. Once the clay has been brought to the settlement, /457/ they go about extracting the stones from it while kneading it, moistened, for several hours. The pot is begun by taking a ball of mud which is given the shape of a bowl. Then they go on adding rings of mud which they join to the pot. The vessel is scraped and shaped with a piece of broken totuma /fruit of the calabash tree/. During the process of the scraping, they go on increasing the size of the pot. They keep the clay damp and plastic, spitting on it from time to time. After this they put the pot out to dry in the sun and finally bake it in the fire. The vessel comes out of

/457 cont./

323 the fire quite blackened when well baked. On my last trip up-
[114] river I had the good luck to see how one of these pots was made,
except for the baking in the fire. In spite of being very fragile,
these pots are highly esteemed for cooking.

Constructions

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The Guaika /Waica/ dwelling is a roof with only one slope and no walls. The basic structure is a triangle of beams supported at its vertices by uprights. The highest angle is supported by a long upright, while the two lower angles are held up by two short crossed stakes at each corner. Or one of these lower corners might be fixed to a living tree for greater stability.

The uprights are pointed at their lower end and stuck into the ground repeatedly until they are quite firm. Then the main beam, or bearing beam, is tied in place horizontally between the short uprights on which the roof is supported. Then the two diagonal beams which form a triangle with the main beam are put in place, and on this basic triangle are added four beams inclined toward both sides. Then the small beams which form the framework which will bear the leaves are put on top.

(Fig. 3./see p. 29/.)

342

• [824] The leaves are placed on top like tiles, but are not tied in place. Brush /breñas/ and sticks are put over the leaves so that the wind will not blow them off. Sometimes palm leaves and brush are drawn up against the back eaves so as to form a sort of back wall. /458/ /220/ Fig. 3 appears here. /

This basic structure may vary, two or more ranchos being joined laterally and their roofs united.

On sites more suitable for more stable constructions (that is to say, where there is considerable clayey ground and consequently fewer fleas or "niguas"), the Guaika build dwellings with the palm leaves of the roof fixed in place. These dwellings are similar to the more temporary constructions, but are generally larger, and the small beams of the framework are replaced by strings of vine stretched lengthwise across the inclined beams. The palm leaves are fixed to these strings, their stems being bent backwards and down, thus piercing the lower layer of leaves.

/462 cont./

Fire

372 The Guaika /Waica/ use the system of simple rotation to make fire. This consists of a piece of soft wood, flattened on one side and rounded on the other, about four centimeters wide at one end, and whose tapering shape ends in a blunt point at the other end. With the tooth of a large rodent they make a circular cut in it near its broader end, and in this is inserted a slender stick (from 30 to 40 centimeters /sic/ in diameter at its base). This stick is held between the palms of the hands and given a rotating movement until a spark burns in the wood dust which has been formed by the rotation of the stick in the hole made in the board. (See Fig. 6.)

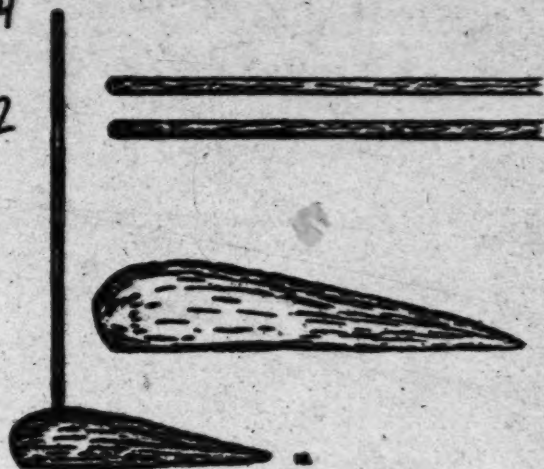
(237)
[412]

• [824] /463/ The tapered piece of soft wood is of cacao, in which several successive holes can be made, and each hole can be used several times for lighting a fire.

In general there is someone in the settlement who has a fire lighted, so that when some native needs fire he obtains it there. In order to carry fire a short distance, two or three lighted sticks are tied together, forming a fagot. When they travel at night, they carry lighted torches to protect themselves against animals

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/Fig. 6/

/463 cont. /

373 as well as to light the path. Torches of gum and resin are also
 416 used sometimes on the paths during the night, but the common
 484 type of torch is the fagot of tied pieces of wood. A group which
 travels at night (as occurs when they are returning after nightfall
 from the work of fishing) may carry only one torch. Then they
 stop from time to time to arrange the joined sticks and to revive
 the fire, keeping it from going out.

373 The wood fire is the principal source of light and heat in the
 374 settlements. The fires are kept lighted during the entire night,
 both to produce warmth and for protection against predatory
 animals and the spirits of human beings which have returned.

372 There do not seem to be any beliefs or ceremonies related
 to the production and maintenance of fire.

Weapons

411 The principal weapon of the Guaika /Waica/ is the bow and
 arrow. They also use macanas.

• (824) The bow is made of palm wood, generally of "pijiguo,"
 (283) with a strong string made of threads of bark. This string has
 three or more threads of twisted bark, which give it great
 strength.

(249) The shafts of their arrows are made of the festooned part
 (237) of a certain wild cane, which they cultivate in their "conucos."
 They feather them with the points of wing feathers of wild turkeys.

Arrow points vary according to the type of game which is
 to be the target. The wide bamboo point is used /464/ principally
 against large land animals; the bone one for shooting large
 and medium-sized birds, and the poisoned points principally for
 monkeys. Any of these points might be used against man in
 the event of war. Against small birds they shoot the shaft,
 first removing the point, or they use a point ramified at the end,
 made out of a small branch quickly broken off some nearby
 plant. The accompanying Fig. 7 /see p. 35/ shows the different
 types of arrow points of the Guaika. /Fig. 7 appears here./

/464 cont./

411 The children make small bows, generally for their games, but
857 they also shoot lizards, which are good bait for fishing. These
[824] bows may be made of several types of wood, but rarely of palm.
The bows of the men are always made of palm.

411 Macanats are used by women for fishing. They are also used
[226] by men in their attacks on other settlements with which they have
had more or less friendly relations, for the purpose of recovering
the wife or daughter held captive there.



/Fig. 7/

Poisons

278
[226] A variety of poisons for fishing are used by the Guaika
/Waica/. One comes from a vine, another from the husk of a
prickly nut, and the third from the bark of a certain thick tree.

[411] Arrow points are poisoned with the poison from the bark of
a vine. They scrape the bark, and the scrapings, /465/ wrapped
in leaves, are kept dry by hanging them over the current of air
from a fire until they are needed.

On the day when an Indian is going to prepare poison, every
man of the settlement gets ready to prepare a set of arrow points
to be poisoned.

The preparer of the poison begins by pulverizing the scrapings
of bark between the palms of his hands. He constantly utters a
series of shouts and grunts while doing this. Then he places the
[415] pulverized bark in a funnel made of leaves, into which hot water

/470 cont./

512 men. Some of them sing in singsong voices to influence the
 (276) spirits, while others wander around like drunks. A few do not
 take any "yopo" at all. These "yopo" cantilenas generally last
 for about two hours.

In the afternoon a few more women, including some of
 those who were in the conuco in the morning, go out to look for
 /471/ firewood. Other women devote themselves to spinning
 cotton. At about 5:00 in the afternoon the women and girls
 go down to the stream to fill all the gourds or totumas.

• [824] A little before dark, the evening meal ends. Palm leaves
 [721] are placed so as to obstruct the entrances to the paths against
 [776] the coming of wandering spirits and also to make greater diffi-
 culty for any attacking band coming from an enemy settlement.
 Every house lights its own fire and prepares for the night. At
 about 7:00 P. M. all is silent.

[535] But if the moon comes out, the women and children may
 [533] continue singing and dancing until well into the night. Or when
 [203] there are visitors who arrived during the day, there might be
 [594] crooning of news throughout the night, until the coming of the
 sun puts an end to it.

Names

553 Every individual receives a name given by his parents. Un-
 551 til the child receives a name, he is called by any of the standard
 names that are applied to small children. The use of these standard
 names is usually prolonged for several years after the boy or girl
 has received his own name. It is taboo to give one person the
 name of another. There are no homonyms or namesakes. An
 individual might be given the name of a plant, an animal, an
 action, an aspect, or sometimes simply be given some name
 invented by his parents.

551 Nicknames are given freely. Some have a root, others do
 not. Usually they are very descriptive and frequently very biting.

It is not good manners to call a person by his name, if it
 can be avoided. It is always better to say: the older brother of
 so-and-so, the older sister of so-and-so, the husband of so-and-so,
 the father of so-and-so, or the mother of so-and-so.

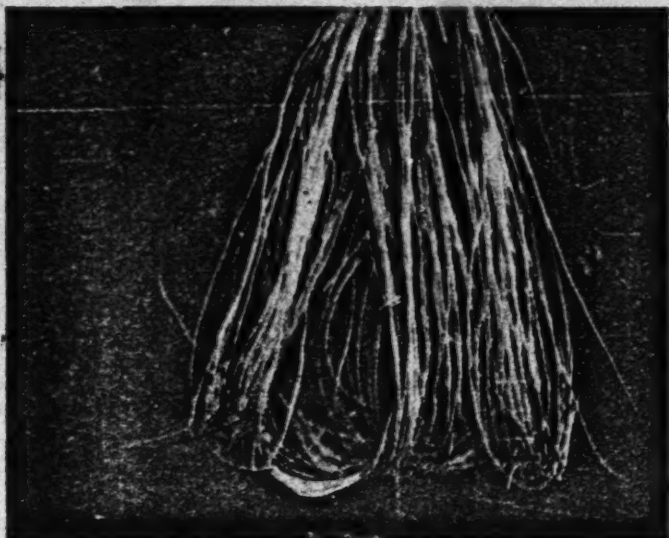
Plate V

342
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291



Interior of a Guaika hut in El Platanal. Note the extraordinary length of their powerful arrows. (Photo. by the author.)

352
● 824



The chinchorro or hammock of the Guaika consists of vegetable fibers joined at both ends, without any transverse weaving. El Platanal. (Photo. by the author.)

THE PHYSICAL ENVIRONMENT · 21

black, heavy, and very brittle. It breaks easily, but the pieces are used by the men as grinding surfaces for their drug manufacture, or as baking dishes when the women make cassava bread. As we shall see below, only a few villages make the clay pots and trade them to the members of other groups. 323 [463] [438]

The most distinctive feature of Yanomamö technology is that it is very direct.⁴ No tool or technique is complicated enough to require specialized labor or raw materials. Each village, therefore, can produce every item of material culture it requires from the jungle resources immediately around it. That is, the simplicity of the tools, the processes of manufacture, and the distribution of resources are such that each village can exist independently of its neighbors as far as technological requirements are concerned. Nevertheless, some specialization in trade and manufacturing does occur, but it seems to be more closely related to the development of political alliances and is therefore discussed in a later chapter. I will describe the material culture at this point and relate it to the over-all adaptation later in this and following chapters. 32 [628] [128]

WEAPONS Wood for bows is obtained from two species of palm tree, one that grows wild and one that is cultivated.⁵ The bow is very heavy because palm wood is extremely dense. One cannot, for example, drive a nail into palm wood. The fibers that go into the thick bowstring come from the inner bark of a tree; these are twisted into a cord by rolling them with the palm of the hand against the thigh. The cord is so strong when it is new that it can be used as a hammock rope, but it deteriorates with age and must be replaced periodically. The bow itself is shaped with the lower jaw of a large, wild pig. The canine teeth in the pig's lower mandible are worn to razor-sharp edges by chewing and make magnificent cutting tools; the bow stave is held vertically and the mandible is planed up and down the surface, each upward stroke shaving off a fine layer of wood. After much labor and patience, the bow is completed. It has a circular or oval cross section and is very difficult to draw. Most Yanomamö bows would compare favorably to our best hunting bows in strength. 411 [824] [283] [412] [237]

Palm wood is also used for one type of arrow point. A splinter of palm wood about 15 inches long is smoothed down to a fine point, and several lateral grooves are cut into it along its length. This is done so that the point will break off in the body of the target. This type of point is covered with curare poison, which slowly dissolves in the animal (or man) after the point has broken off. This point is used most frequently for monkey hunting, as monkeys tend to grab hold of branches and tree trunks when they are wounded. The curare relaxes their muscles, and the monkeys sooner or later fall to the ground. Unless the point were coated with curare, the animal might die high in the treetops and could not be easily recovered. The Yanomamö also carry large supplies of extra palm points in their bamboo quivers since these points break whether or not the arrow strikes the intended target. This type of point is manufactured in large quantities in several villages and is traded to other groups. [924] [278] [224] [438]

The curare vine is also collected wild from the jungle. It is soaked in hot water to leach out the active ingredient. The water containing the poison is then painted onto the palm-wood points over glowing coals; the water evaporates, leaving a brown, sticky 278

⁴For more details on Yanomamö material culture than are given here, see Becher (1960) and Zerries (1964).

⁵The cultivated palm, *pijiguan*, produces a desirable fruit. It is cultivated for the fruit, but the wood of dead palms is used in bow manufacturing. [245]

22 : ADAPTATION

278 layer of poison. Sometimes other ingredients are added to the poison to make it stickier and less soluble. Without these ingredients, the poison would be washed off by the rain. As an extra precaution against this, some men wrap a leaf around the curare point after it has been attached to the arrow.

415 Arrow-point quivers are made from 2-inch bamboo sections of about 18 inches.
411 The quiver is essentially a tube of wood with a natural joint serving as the bottom of the
[824] case. The bamboo grows wild in large stands, and some villages specialize in collecting
[438] it, making quivers, and trading them to other groups. A piece of monkey, snake, or jaguar
[239] skin, molded to fit over the top prevents water from getting into the tube. It usually contains a dozen or so extra arrow points, fibers for fastening the points to the arrow shaft, a ball of resin used as adhesive, a few splinters of bone used to tip one kind of arrow point, and, occasionally, a magical charm. A fiber or cotton string is tied around the bamboo tube near its top, and a loop is fashioned so that the tube can be worn around the neck. It hangs down the middle of the back.

372 The Yanomamö attach their fire drills and a pair of agouti-tooth knives to the
[824] outside of the bamboo quiver. The fire drill is made from the wood of the cocoa tree and consists of one or two 20-inch long, slender shafts, circular in cross section, and a 12-inch long lanceolate-shaped piece of cocoa wood into which have been worn several holes. The latter piece of wood is placed on the ground and held firmly in place by the foot. The tip of the slender shaft is placed into one of the holes, and the shaft is twirled rapidly with the palm of the hands; the heat of the friction ignites the wood dust that results from the spinning tip, and this is immediately transferred to some cotton tinder. The men usually work in pairs to start a fire, as the dust cools off by the time a single man can get his hands back up to the top of the slender shaft to begin another downward twirling motion.

412 The agouti-tooth knives are manufactured from the lower incisor of the agouti
[239] rodent. The incisors are long, slender, gently curved, and very sharp. The tip of the incisor is shaped like a wedge and is frequently indented. The exterior part of the tooth is much harder than the pith so that a very sharp edge protrudes slightly above the softer, decayed dentine. The Yanomamö keep the dentine worn down by periodically "sharpening" the tooth; this is accomplished by cutting into a particular kind of reed, which apparently contains a corrosive ingredient that attacks the dentine but does not affect the enamel of the tooth. The base of the tooth is fastened in a short piece of wood
[314] by a resin adhesive and a fiber wrapping. The completed knife is as sharp as any steel
[239] chisel, but because of its small size, its usefulness is limited. It is primarily used to whittle lanceolate arrow points from bamboo, a very time-consuming job.

226 The jungle also provides another kind of poison used by the Yanomamö to kill fish. The men select a small stream, dam it up, and put the juice of a vine into the water. This stuns the small fish, which then float to the surface where they are scooped up by the women either by handfuls or with loosely woven, shallow baskets (see Fig. 2-2). If the woman is in the middle of the stream, she empties the contents of her basket into her hand and then stores the handful of squirming fish in her mouth until both the basket and her mouth are full. If larger fish are caught, the women bite them behind their heads to kill them and toss them out on the bank. The first one in the stream takes a chance on locating an electric eel; if she is shocked, the others try to locate the eel with sticks and kill it.

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"Razor grass"—a reed—also grows wild in the jungle. It is used by the Yanomamö to cut their hair and to keep their tonsures cleanly shaved. A sliver of this reed is wrapped around the index finger in such a way that the sharp edge is exposed. The practiced hand can shave a head bald in a matter of minutes and with no more pain than would come from using a dull steel razor blade. This grass is also found around some of the villages, but appears not to be cultivated.

HALLUCINOGENIC DRUGS Another useful plant provided by the jungle is the *dumé* tree. The inner bark of this tree is used in the manufacture of one kind of hallucinogenic drug. The bark is scraped from the trunk after the exterior layer of bark is removed, or is scraped from the inside of the bark surface itself. This material, which is fairly moist, is then mixed with wood ashes and kneaded between the palms of the hands. Additional moisture is provided by spitting periodically into the pliable wad of drug. When the drug has been thoroughly mixed with saliva and ashes, it is placed on a hot piece of broken clay pot and the moisture driven out with heat. It is ground into a

Fig. 2-2. Women fishing in a dammed stream that has been poisoned by the juice of a wild liana. The poison is introduced upstream by the men, and the stunned fish are collected in baskets by the women.





Fig. 2-3. Thatching a new roof with leaves.

The Indians do not like the wind because it blows the leaves off the roof. They do not tie the leaves down, depending on age and the rain to pack them into a homogeneous layer. They sometimes throw long sticks and brush on the roof to keep the wind from blowing the leaves away, but their major defense is magic: when a strong breeze comes up, the shamans rush to the center of the village, wave their arms frantically, and shout incantations to Wadoriwil, the spirit of the wind, enjoining him to stop blowing the leaves off the roof.

The Yanomamö make another kind of shelter when they travel. It can be erected in less than a half-hour. A long front pole is selected and joined to two shorter back poles with two sticks. The roof structure thus fashioned is triangular in shape, about

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removed and laid along the ground in the direction of the burrow to measure the distance from the entrance. The men began digging at the end of the vine and located the asphyxiated armadillo on the first attempt. 224

The jungle provides many other kinds of foods and products too numerous to mention. Some, like vines and lianas, are very useful and commonly employed in basket-making; others, such as edible mushrooms, crabs, pigments, and decorative plant products, are less significant, and exploited only sporadically. Despite the amazing variety of food products to be found in the jungle, however, the Yanomamö could not exist for any substantial period of time on collected foods only: they rely heavily on their cultivated crops. The tropical forest is much less productive and reliable than one would imagine. The most abundant foods, palm fruits, are seasonal—a group of people could only rely on them for a few months of the year, during which time some 80 group members would have to forage over a wide area to obtain sufficient palm fruits to keep everybody well fed. 222 433 [824]

Game animals are not abundant, and an area is rapidly hunted out, so that a group must keep constantly on the move. Furthermore, hunting depends as much on luck as it does on skill and is not a very reliable way to supply nourishment. I have gone on five-day hunting trips with the Yanomamö in areas that had not been hunted for decades, and had we not brought cultivated foods along, we would have been extremely hungry at the end of this time—we did not collect even enough meat to feed ourselves. On other trips, we often managed to collect enough game in one day to feed the entire village. 224 433

GARDENING Although the Yanomamö spend almost as much time hunting as they do gardening, the bulk of their diet comes from foods that are cultivated. Perhaps 85 percent or more of the diet consists of domesticated rather than wild foods—plantains are by far the most important food in the diet. 241 262 433

The Yanomamö are constantly looking for potential garden sites. When I hunted with them, the topic of conversation that evening would eventually drift over to the merits of the area as a possible site for a new garden. Most new garden sites are, in fact, discovered by hunters. 241 311 [521]

The land for a new site should not be heavily covered with brush, which is difficult to remove. The larger trees should not be too numerous either, as it takes a good deal of work to chop them down. Ideally, the new site should have very light jungle cover, should be well drained, near a source of drinking water, and relatively free of thorny underbrush. The Yanomamö call a garden *bikari täka*; jungle that has the potential of being a good garden is likewise called *bikari täka*. [312]

The first operation in making a new garden is to cut the smaller trees and brush; the bigger trees, *kayaba hi*, are left standing until the underbrush is removed. Then the big trees are felled with axes and left lying on the ground to dry out in the sun. 241

My older informants claimed that they did not have steel tools when they were younger and had to kill the big trees by cutting a ring of bark off around the base of the stump, using a crude stone axe, piling brush around them, and burning them. The trees rarely fell, but the fire usually killed them, and their leaves dropped off, permitting the sunlight to reach the ground. [313] 412 [77]

They also claimed that making a garden was more arduous in those days because a large area would have to be searched for the necessary quantities of kindling used to kill the big trees. Today, however, steel tools are quite common, being provided by the

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guishing feature that sets it aside from other groups of Yanomamö. Many wild plants are also said to have magical properties. 000 824 •

CONCLUSION The Yanomamö have adapted to their jungle environment with a very simple technology. Exploiting both the naturally occurring foods and domesticated crops is relatively easy with this technology, and the resources of both the jungle and the garden provide the people with the two basic necessities of life: food and shelter. Although the resources are extremely varied and numerous, the diet is largely dominated by one food item: plantains. Techniques of manufacturing are so simple and direct that each individual can produce any item he needs from the resources immediately around him. The material aspect of the culture is decidedly rudimentary by comparison with other tropical forest tribes; the Yanomamö appear to deliberately limit their possessions to an amount that can be easily transported in case the group is obliged to abandon its site on short notice. 105 433 182

Adaptation to the Sociopolitical Environment

The adaptation of the Yanomamö to their environment can be only partially expressed in terms of how they make a living in the tropical forest with specific kinds of tools, plants, and techniques, for the forest is only one aspect of the external world to which they must adjust. Their adaptation also takes place in a social and political environment. This likewise affects the way in which the Yanomamö are distributed over the land, how their villages are moved from one location to another, and the kinds of relationships each village has with its neighbors. In short, the Yanomamö must relate themselves to each other as well as to nature. 182 361 628 •

ALLIANCES AND VILLAGE SIZE I spoke of the considerations that must be met when a new garden site is selected. However, the area within which the new site is selected is determined almost exclusively by political factors. A Yanomamö group would remain indefinitely in the area it settled were it not for the threat of raids from warring neighbors. To be sure, the group would move its garden little by little each year, but the general area would be abandoned only if the people were driven out by stronger groups around them. Again, dissident factions of the village might leave the area if a particularly serious fight developed within the group, but because a garden is necessary for the group to survive as a group, the Yanomamö abandon them only when faced with disaster. To establish a new garden at a great distance from the old one, a Herculean effort is required just to transport the necessary plantain cuttings and seed, not to mention carrying provisions for eating while the work of clearing the garden and planting the crops progresses. Then, since a new garden produces sporadically for the first year, the people are frequently faced with food shortage. They are, therefore, reluctant to sacrifice the predictability of subsistence at the established garden for insecurity, periods of hunger, and hard work at some distant location. 361 241 722 [578]

Instead, they develop political alliances with neighboring villages, thereby adjusting to their social environment. The nature of these alliances is discussed in detail in Chapter 4, but at this point I will make some general statements about the relationships between villages to show why, on the one hand, the social environment calls forth the alliances, and why on the other hand, when alliances fail, a group must abandon its area. 628 •

90 · SOCIAL ORGANIZATION

512 supplies soak the new leaves in water and add ashes from the hearth to the wad. Men,
 296 women, and children chew tobacco and all are addicted to it. Once there was a shortage
 (129) of tobacco in Kapobawil's village and I was plagued for a week by early morning visitors
 who requested permission to collect my cigarette butts in order to make a wad of chewing
 tobacco. Normally, if anyone is short of tobacco, he can request a share of someone
 else's already chewed wad, or simply borrow the entire wad when its owner puts it down
 somewhere. Tobacco is so important to them that their word for "poverty" translates
 as "being without tobacco." I frequently justified my reluctance to give away possessions
 on the basis of my poverty. Many of them responded by spitting their tobacco into their
 hand and handing it to me.

512 Work begins as soon as breakfast is completed; the Yanomamö like to take
 (241) advantage of the morning coolness. Within an hour after it is light the men are in their
 gardens clearing brush, felling large trees, transplanting plantain cuttings, burning off
 dead timber, or planting new crops of cotton, maize, sweet potatoes, yuca, taro, or the
 (461) like, depending on the season. They work until 10:30 A.M., retiring because it is too
 (515) humid and hot by that time to continue with their strenuous work. Most of them bathe
 in the stream before returning to their hammocks for a rest and a meal.

(973) The women usually accompany their husbands to the garden and occupy them-
 (461) selves by collecting firewood or helping with planting and weeding. In this way the men
 are sure that their families are safe and that the women are not having affairs with other
 men.

(157) The children spend a great deal of time exploring the wonders of the plant and
 (224) animal life around them and are accomplished biologists at an early age. Most twelve-
 (125) year-old boys can, for example, name twenty species of bees and give the anatomical
 or behavioral reasons for their distinctions—and they know which ones produce the best
 honey. An eight-year-old girl brought me a tiny egg-like structure on one occasion and
 asked me to watch it with her. Presently it cracked open and numerous baby cockroaches
 poured out, while she described the intimate details of the reproductive process to me.

(367) The younger children stay close to their mothers, but the older ones have con-
 siderable freedom to wander about the garden at play. Young boys hunt for lizards with
 miniature bows and featherless arrows. If they can capture one alive, they bring it back
 (231) to the village and tie a string around it. The string is anchored to a stick in the village
 (526) clearing and the little boys chase it gleefully, shooting scores of tiny arrows at it (see
 Fig. 3-8). Since lizards are very quick, and little boys are poor shots, the target practice can
 last for hours. Usually, however, the fun terminates when an older boy decides to make
 an end to the unhappy lizard and kills it with his adult-size arrows, showing off his
 archery skills to the disgruntled small fry.

(157) Little girls learn very quickly that it is a man's world, for they soon must assume
 (526) much of the responsibility for tending their younger siblings, hauling water and fire-
 wood, and in general helping their busy mothers.

(461) Most of the people rest in their hammocks during the heat of midday, although
 (222) they will collect fruits and other wild foods from the surrounding area, if any are in
 season. They avoid being in the direct rays of the midday sun.

(461) If the men return to their gardening, they do so about 4:00 P.M., working until
 (241) sundown. Otherwise, they gather in small groups around the village and take hallucin-
 (216) ogenic drugs in the late afternoon shadows, chanting to the mountain demons as the

108 · POLITICAL ALLIANCES, TRADING AND FEASTING

*628
574 undertake it if it meant getting rid of their first group of visitors, who, by this time, had spent nearly a week eating Kąobawí's produce.

• 624
415
[352] On the morning of the feast three large pieces of bark from the *anapuri* tree were cut and brought to the village. These were made into troughs to contain the boiled, ripe plantain soup. All day long Kąobawí's younger brothers, who had returned from the hunt the day before, labored at cooking the enormous quantity of ripe plantains, pouring each boiling containerful into the trough as it was prepared.³

[251]
[352] The plantains that Kąobawí had hung in his *shalewa* roof a week before were now ripe. The young men who were preparing the soup would cut the bunches of plantains from the roof, split each fruit with their thumb, throw the two halves of the flesh into a cooking pot, and toss the skins onto a pile. They worked at this task from early morning until late afternoon, in addition to boiling a nearly equal quantity of green plantains, which provided the green vegetable food that customarily accompanies the presentation of meat. Ynomamó etiquette dictates that meat must be accompanied by vegetable food

[624] and vice versa.⁴ It is an insult, for example, to offer someone meat without simultaneously offering a vegetable food with it. Peeling green plantains is a little more difficult

[650] than peeling ripe ones, which are very tough and brittle. The Ynomamó solve this problem, like they solve so many others, by using their teeth. Each plantain is bitten along its length several times, cracking the peel, which in turn is removed with the fingernails and further application of the dentition. On this particular occasion, two young men peeled, with their thumbs, enough ripe plantains to make approximately 93 gallons of soup, and, with their teeth, a sufficiently large quantity of green plantains to fill a dozen large pack-baskets.

[622]
[351] In the morning on the day of the feast, Kąobawí went to the center of the village clearing where all could see him and proceeded to pull weeds. The clearing has to look presentable to the visitors, as it functions as the dancing plaza. As noted before, since Ynomamó headmen cannot directly order their followers to execute tasks such as these, they usually initiate them and hope that others will follow. By and by, a number of older men joined him, as well as a few women, and when a sufficient number of workers were pulling weeds and hauling them out, Kąobawí quietly retired to his hammock, from which he oversaw the food preparations and calculated the distribution of meat.

Excitement in the village grew conspicuously as the hours passed, and by noon there was a constant din of laughter and chatter, punctuated now and then with a shrill scream from some young man overcome with the thrill of the feast. Occasionally, the visitors would reply to the shouts, setting off a brief contest of screaming between hosts

[415]
[679] *Kąobawí's group has access to aluminum pots now and uses them extensively in food preparations. Most Ynomamó groups still use crude clay pots, although these are being rapidly replaced by aluminum ware, which is traded inland to the more remote villages.

[662]
[714] *The three vegetable foods considered to be suitable accompaniments for the meat presentation are: boiled green plantains, boiled *naku* fruit, and cassava bread. A number of ethnologists and a few scientific observers have identified the Ynomamó feast strongly with the *naku* fruit (Zerme 1955; de Buronliann 1966). If it is to be identified with any food, it should be called the "plantain feast," but to identify the feast with a food that sometimes (*naku*) or invariably (plantains) accompanies it is to overlook the sociopolitical causes of the feast. *Naku* is so unnecessary to the feast that it was served at only two of six feasts I attended. In short, the Ynomamó feast is a social and political event, not a harvest ceremony, and occurs independently of the abundance or availability of *naku* fruit. *Naku* fruit ripens in February, the peak of the dry season. It is only in the dry season that feasts can be held, because travel is difficult or impossible at other times of the year. The correlation of the ripening of *naku* and feasting is rather more fortuitous than causal.